Exhibit List

Exhibit 1	Excerpts of Division of Oil, Gas and Mining, *Technical Analysis* (Oct. 15, 2009) 18, 82-83.
Exhibit 2	MOAC, Cultural Resource Management Plan (May 23, 2008), Figure 2.
Exhibit 3	Letter from Pamela Grubaugh-Littig, Permit Supervisor to Dr. Mathew Seddon, Deputy State Historic Preservation Officer (Nov. 2, 2007), *Decision Memo Requesting State Historic Preservation Office on Eligibility and Effect Determination*
Exhibit 4	MOAC, Cultural Resource Inventory of Alton Coal Developments (March 10, 2006), at 3 (Figure 1)
Exhibit 5	Excerpts of Rule 30(b)(6) Deposition of Jody Patterson (Feb. 25, 2010)
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Exhibit 8	Letter to Chris McCourt, ACD Manager, dated May 9, 2008, Daron Haddock, Permit Supervisor.
Exhibit 9	MOAC, Cultural Resource Management Plan (May 23, 2008), page 3.
Exhibit 10	MOAC, Cultural Resource Management Plan (May 23, 2008), Figure 3.
Exhibit 11	Email from Matthew Seddon, Deputy State Historic Preservation Officer, to Joe Helfrich, DOGM (May 5, 2008)
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Exhibit 15	EPA, Emission Measurement Technical Information Center Test Method-009 (Oct. 25, 1990)

Exhibit 16	Email from Priscilla Burton to Jon Black re. Fugitive Dust Plan (Oct. 13, 2009)
Exhibit 17	Letter from Donna Owens, District Ranger, Powell Ranger District, Dixie National Forest, to Mary Ann Wright, Associate Director, Mining, Division of Oil, Gas, & Mining (May 9, 2008)
Exhibit 18	Letter from Eddie Lopez, Supervisor of Bryce Canyon National Park to Keith Rigtrup at the BLM Kanab Field Office (February 23, 2007)

Alton Permit
Docket No. 2009-019
Exhibit 1

State of Utah

Coal Regulatory Program

Coal Hollow
C/025/0005
Alton Coal Development, LLC
Technical Analysis
October 15, 2009

Findings:

The information provided in the proposed amendment is adequate to meet the requirements of this section.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The application for the Coal Hollow Mine includes the following cultural resource information (located in confidential files):

- 6/14/07 Cultural Resource Inventory
- 6/14/07 Paleontological Survey
- 6/14/07 Geologic Report of the impacts of Bedrock and Surgical Units on the Distribution of Cultural Resources at the Alton Coal Field
- 6/14/07 Data Recovery Plan for identified Cultural Resources
- 6/25/07 Revised Data Recovery Plan
- 1/9/08 Draft Outline of Cultural Resource Management Plan, CRMP
- 02/28/08 2nd Revision to Data Recovery Plan
- 02/28/08 Excavation Permit Application
- 03/14/08 CRMP
- 05/23/08 Revised CRMP

On November 2, 2007, the Division sent a letter to Dr. Matthew Seddon, State Historic Preservation Officer, requesting concurrence with the Division's determination and eligibility effect determination for the proposed Coal Hollow Mine. Dr. Seddon concurred with the Division's determination by way of correspondence dated November 20, 2007. However, because of adverse impacts and cumulative effects associated with the lease application on federal land, a Cultural Resource Management Plan, (CRMP) was developed in addition to the Data Recovery plan. To date several revisions to the Data Recovery plan and a Cultural Resource Management Plan, (CRMP); have been submitted to the Division for review and comment. The CRMP dated 05/23/08 and Data Recovery Plan dated 02/28/08 were the documents included in this review.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Analysis:

The Division received a comment that the Operation Plan is not specific to local hydrologic conditions nor does it address potentially adverse hydrologic consequences because the PHC is not complete. As discussed in this and other Tech Reviews, there are deficiencies in the baseline data and in the PHC that need to be addressed, but these deficiencies are not fatal flaws that have precluded the Applicant from formulating an Operation Plan. The Operation Plan submitted by the Applicant is based on valid baseline data and a reasonable draft PHC determination. All three elements are subject to revision as the deficiencies are addressed by the Applicant

The Applicant did not meet the general requirements of this section. Those general requirements include:

- In Section 523 the Applicant described the type of coal mining procedures, anticipated annual and total production of coal, by tonnage, and some major equipment they will use for all aspects of those operations.
- In Section 536, Section 528 and Section 553 the Applicant described the construction, operation and reclamation of the mine facilities. The Division will analyze specific facilities in other sections of the Technical Analysis (TA).

The Applicant has described a 2MT, 24 hr/day 6 day/week operation in Introduction to the PAP. In consulations with the Governor's Office in 2005 and with the DEQ and DOGM in 2007, the Applicant described a 2 MT, 2 shift/day, 6 day/week operation. As explained to the Governor's Office in 2005, the initial decision for a 2 shift work day was made to avoid night sky issues that were raised in the Cecil Andrus 1980 Suitability decision (Ex. 3, App. 1-3). The night sky issue has been raised by commenters during the recent public comment period and by the USFS and Bryce Canyon National Park in comments provided to the Division. The application must explain the equipment required for lighting the 24 hour operation and the effect on the night sky as seen from Bryce Canyon National Park and the Dixie National Forest.

- Section 526.220 has been revised to include a list of anticipated lighting equipment that would likely be used to illuminate the night mining operations. The Division will analyze the list of specific equipment under the Support Facilities and Utility Installations section of this TA.

- However the Applicant has not discussed the effect on the night sky as seen from Bryce Canyon N. P. and the Dixie N. F. Therefore, this deficiency remains and must be addressed prior to receiving a recommendation for approval.

This issue was specifically raised in comments sent to the Division of Oil Gas and Mining by the public and from the District Ranger of the Dixie National Forest (2008/Incoming/0048.doc).

Such issues were also the subject of discussion in the federal unsuitability decision made for surface mining of federal lands within T 39 S, R. 5 W. by Cecil Andrus, Secretary of Interior's on December 16, 1980 (App. 1-3, Ex. 1). Secretary Andrus specified in items 5 and 6 of the unsuitability determination that any future specific mining plan or permit application for surface mining of the other federal lands in the Alton Coal field should be reviewed for visibility, vibration, and noise issues by the Department of Interior (through the National Park Service and the Office of Surface Mining) to determine whether specific conditions or stipulations should be placed on the permit. The Secretary stressed that the unsuitability designation was not "the only basis for protection of the values for which Bryce Canyon National Park was established," and directed the Department of Interior to take Park values into account in future decisions on undesignated federal lands near the park. For surrounding federal lease areas, these issues are being reviewed by the BLM in the Draft Alton Coal Tract LBA Environmental Impact Statement (EIS).

Findings:

The information provided in the application is adequate to meet the Utah Coal Mining Rules for this fee coal mine permit.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Analysis:

In Section 526.100 of the PAP, the Applicant states that there are no existing structures within the permit area.

Findings:

The information provided in the application is considered adequate to meet the requirements of this section.

Alton Permit
Docket No. 2009-019
Exhibit 2

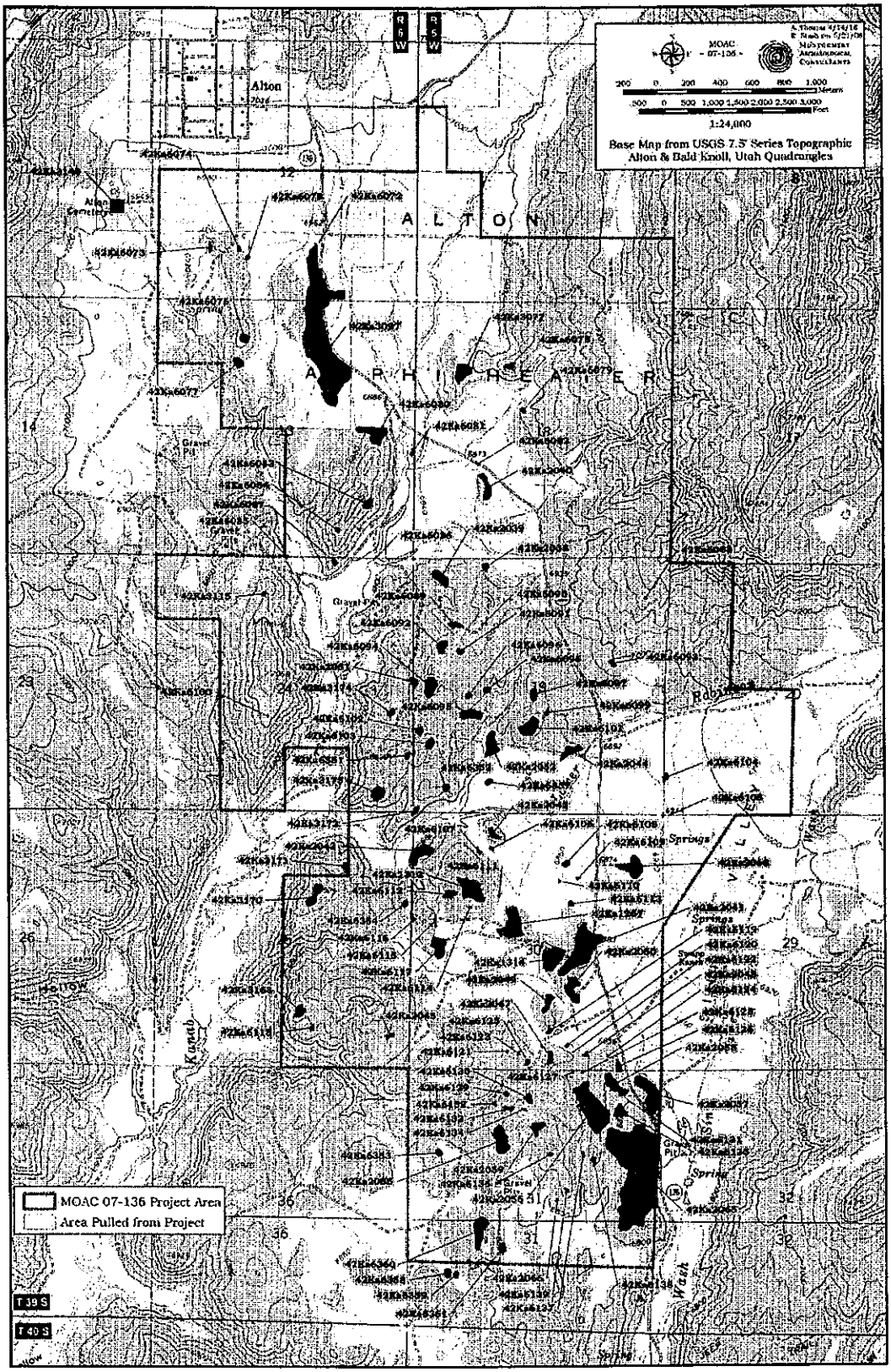

Figure 2. Alton Coal Project Area, Kane County, Utah; Showing Cultural Resources.

Alton Permit
Docket No. 2009-019
Exhibit 3

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

November 2, 2007

Dr. Mathew Seddon, Deputy State Historic Preservation Officer
Division of State History
300 South Rio Grande Street
Salt Lake City, UT 84101

Subject: Decision Memo Requesting State Historic Preservation Office (SHPO) on Eligibility and Effect Determination, Alton Coal Development Company, LLC, Coal Hollow Mine, C/025/0005, Task ID #2814 , Outgoing File

Dear Dr. Seddon:

The Division of Oil, Gas, and Mining is requesting your concurrence on the eligibility and effect determination for the proposed Coal Hollow Mine. The project area was inventoried by Montgomery Archaeological Consultants in June of 2005. Enclosed please find a report from this inventory, entitled "Cultural Resource Inventory of Alton Coal Development's Sink Valley – Alton Amphitheater Project Area, Kane County, Utah". Fifteen archaeological sites were located during this inventory. Additionally, I have enclosed please the IMACS forms for these fifteen sites (42KA1313, 2041 – 2044, 2068, 6104 – 6110, 6124, and 6126).

As directed by Utah Code Section 9-8-404, the Utah Division of Oil, Gas, and Mining (UDOGM) is providing you with the following written evaluation of the proposed undertaking's effect on historic properties and respectfully requests your concurrence with the following determinations. UDOGM has determined that fourteen of the sites are historic properties (sites eligible for the National Register of Historic Places). Seven of these eligible, historic properties will be affected by the proposed coal extraction activities. Please see the table below for specific determinations of eligibility and effect.

Table 1 – Determinations of Eligibility and Effect

Site Number	NRHP Determination	Effect Determination
42KA1313	Eligible	No Effect (will be avoided)
42KA2041	Eligible	No Effect (will be avoided)
42KA2042	Eligible	Adverse Effect
42KA2043	Eligible	No Effect (will be avoided)
42KA2044	Eligible	No Effect (will be avoided)
42KA2068	Eligible	Adverse Effect

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • www.ogm.utah.gov

UTAH DNR OIL, GAS & MINING

42KA6104	Eligible	Adverse Effect
42KA6105	Eligible	Adverse Effect
42KA6106	Eligible	Adverse Effect
42KA6107	Eligible	Adverse Effect
42KA6108	Eligible	Adverse Effect
42KA6109	Eligible	No Effect (will be avoided)
42KA6110	Eligible	No Effect (will be avoided)
42KA6124	Not Eligible	
42KA6126	Eligible	No Effect (will be avoided)

Our office will work with you to develop a mitigation plan for the seven sites that will be "effected" by the undertaking.

If you have any questions or concerns please contact Joe Helfrich at (801) 538-5290 or Lori Hunsaker at (801) 537-9036 or me at (801) 538-5268.

Thank you.

Sincerely,

Pamela Grubaugh-Littig
Permit Supervisor

an
Enclosure
O:\025005.COL\FINAL\coal hollow shpo letter11022007.doc

Alton Permit
Docket No. 2009-019
Exhibit 4

CULTURAL RESOURCE INVENTORY OF ALTON COAL DEVELOPMENT'S SINK VALLEY-ALTON AMPHITHEATER PROJECT AREA, KANE COUNTY, UTAH

By:

Patricia Stavish

With Contributions by:

Alden H. Hamblin
A.H. Hamblin Paleontological Consulting
and
Nancy B. Lamm
Licensed Professional Geologist

Prepared For:

Utah Division of Oil, Gas & Mining
Salt Lake City

Prepared Under Contract With:

Alton Coal Development, LLC
195 North 100 West
P.O. Box 1230
Huntington, Utah 84528-1230

Submitted By:

Keith R. Montgomery, Principle Investigator
Montgomery Archaeological Consultants. Inc.
P.O. Box 147
Moab, Utah 84532

MOAC Report No. 05-95

March 10, 2006

United States Department of Interior (FLPMA)
Permit No. 05-UT-60122

State of Utah Antiquities Project (Survey)
Permit No. U-05-MQ-0346p

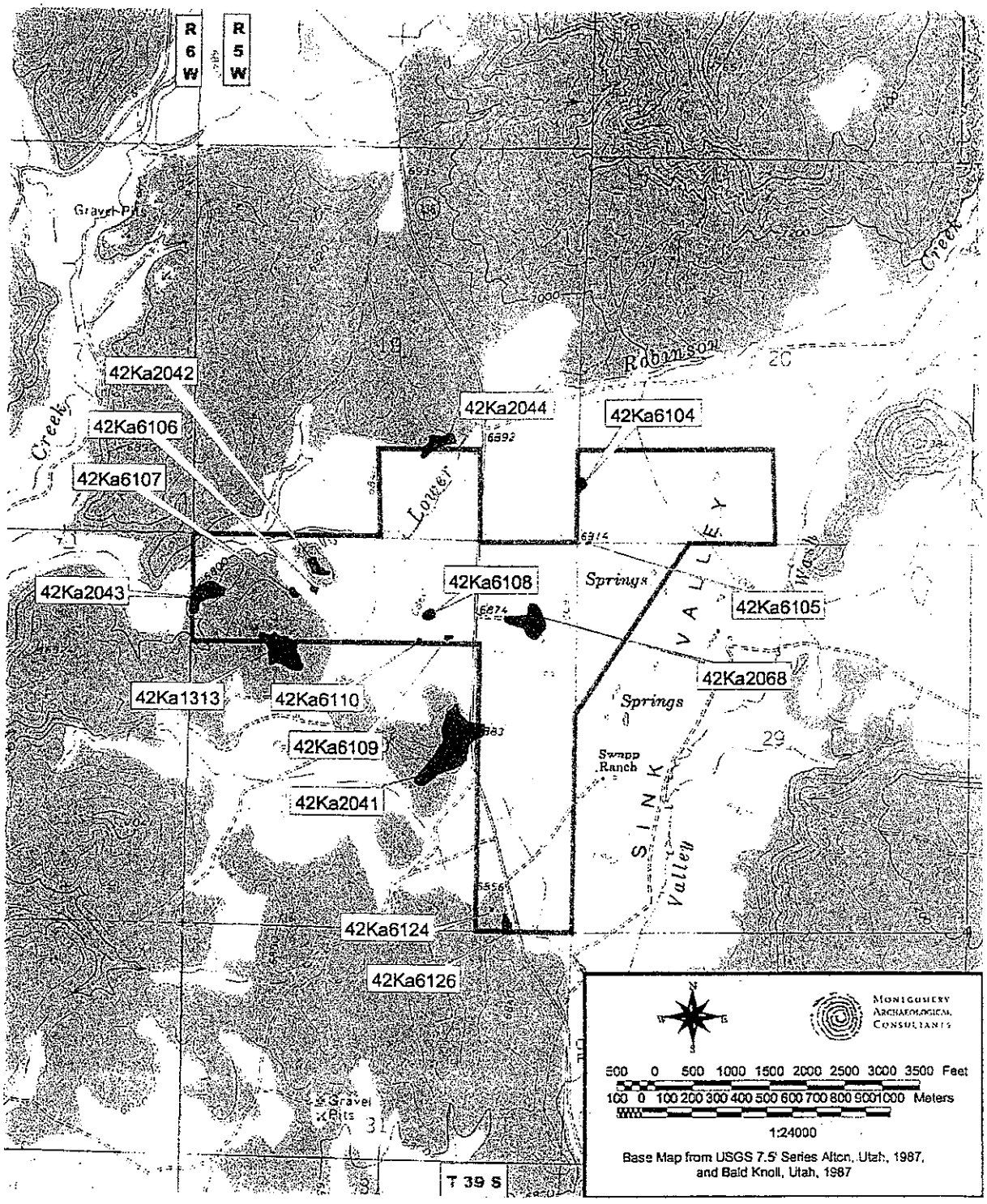

Figure 1. Cultural Resource Inventory of the Proposed Sink Valley Parcel in Alton Amphitheater for Alton Coal Development showing Archeological Sites.

Alton Permit
Docket No. 2009-019
Exhibit 5

In The Matter Of:

Utah Chapter of the Sierra Club v.
Division of Oil, Gas and Mining

February 25, 2010

Q & A Reporting, Inc.
1872 South Main Street
Salt Lake City, Utah 84115
801.484.2929

Original File altoncoal30(b)(6)final.TXT
Min-U-Script® with Word Index

prepared by Montgomery Archeological Consultants?

A. Not to my knowledge.

Q. With what personnel at Montgomery Archeological Consultants did ACD deal in the preparation of this plan?

A. Mainly Jody Patterson and Patricia Stavish.

MR. MORRIS: Thank you, sir. I would like to question Mr. Patterson, then. Thank you for your testimony.

JODY PATTERSON,

being first placed under oath, was examined and testified as follows:

EXAMINATION

BY MR. MORRIS:

Q. Would you state your name for the record.

A. Jody Patterson.

Q. How are you employed, Mr. Patterson?

A. I work for Montgomery Archeological Consultants as a principal investigator.

Q. Mr. Patterson, I am Walton Morris. I am one of the lawyers for the Utah Chapter of the Sierra Club and the other petitioners in this proceeding before the Board of Oil, Gas and Mining concerning the approval of the Coal Hollow mining permit that Alton Coal Development, LLC, obtained back last October.

A. Uh-huh (affirmative).

Q. Have you ever been deposed before?

A. I don't know.

Q. Okay. Earlier you described your work in terms of undertakings.

A. Uh-huh (affirmative).

Q. What was the undertaking, or what were the undertakings, if there were more than one, involved in the work that Montgomery did in this instance?

A. The undertaking that was given to us originally was that Alton wanted to develop an open-pit coal mine, and within the first area they gave us, they kind of delineated where that pit was going to be and where some of the auxiliary facilities were going to be as well.

Q. Is the area that Alton Coal identified to you depicted on Exhibit-1?

A. More or less, yes, sir.

Q. And would you describe for the record how it is depicted. How does one determine that --

A. The original area that we inventoried that they said was of greatest concern, where the open pit and a lot of facilities were going to be are defined on this map as the pink that would be private surface, private coal.

Q. Insofar as you know, just for the record, that was never designated as Phase 1 for you or for your company?

A. In conversations we have had with Alton Coal, it was -- this was identified as what they wanted to get

started on, and then if they got the BLM leases, they would move on to other areas. So, yes, there was a phased approach, but we were never -- you know, "Come do Phase 1, come do Phase 2." It was always presented in those terms to the best of my knowledge.

Q. But as a practical matter, there was a Phase 1, and that is what is shown in pink, more or less, I think you said.

A. More or less except for the T.

Q. Except for the T. And a Phase 2, which would be the area shown in blue plus the Alton Cemetery?

A. Yeah.

Q. Did Montgomery Archeological Consultants provide ACD with any analysis of effects on historic properties located completely outside the area identified in pink on Figure 2 --

A. We would not know --

Q. -- on Exhibit-1.

A. Pardon?

Q. I'm sorry. Identified in pink on Exhibit-1.

A. Anywhere in the pink?

Q. No. Anywhere outside of the pink.

A. Of course, we conducted the inventories in the blue areas as well, but, to my knowledge, we haven't really addressed any impacts to those sites yet because we don't

know what those impacts are going to be, and even if they are going to have those leases yet, although they have been inventoried.

Q. Right. So, again, my question was, did Montgomery Archeological Consultants provide ACD with any analysis of the effects of the mine on historic properties that are located completely outside of the area shown in pink on Exhibit-1?

A. Yes.

Q. Which?

A. There was one site that straddled that boundary which impacts were considered on, as well as some other cultural resources that were along the edge of that area, this pink and blue border, that also straddled those legal designated lines that we suggested that they avoid.

Q. All right. But were there -- were any of the areas you just referred to in your last answer completely outside of the pink area?

A. No, sir.

Q. Thank you.

Does ACD agree that the cultural resources inventory was prepared to address the division's approval of the Coal Hollow Mine application?

A. Yes.

Q. Does ACD agree that the cultural resources

Oil, Gas and Mining or if that went through the BLM.

Q. Or both?

A. It probably would go through both, but I'm not sure who -- I cannot recall right off the top of my head who was the lead agency on that, because I know that we sent that information to the BLM as well. But I would assume that it would be submitted -- yeah -- memory is coming back. It's been a while.

Yes, it went to both.

Q. It went to both?

A. Yes.

Q. Thank you, sir.

Did Montgomery Archeological Consultants look at the lease by application area in preparing the data recovery plan?

A. No.

Q. Are you familiar with the permit area identified in ACD's Coal Hollow Mine permit application?

A. Not the exact boundaries. The general area.

Q. You are familiar with the general area, did you say?

A. Yeah. Basically what's shown on the map.

Q. Shown in pink?

A. Yeah.

Q. Just so that I am clear and you are certain of

what I mean by my next few questions, you defined -- you were referring to Exhibit-1 in your last answer, were you not?

A. Uh-huh (affirmative).

Q. And you responded that the permit area was, to your knowledge, the area shown in pink; is that correct?

A. A little clarification. When I look at this map, what I see is actually the work that we have done and the project areas that are defined by the work that we did and not necessarily what Alton Coal has proposed. So this area in pink minus this area in T, I see as one area. The rest of it, including this pink T, I see as a second area. And that correlates to what our cultural resource inventories covered.

Q. So your understanding of the permit area is the area shown in pink on Exhibit-1 less the T at the north end of that pink area?

A. Yes.

Q. All right. Referring to that in my subsequent questions as the permit area, and recognizing that you are doing the very best you can with the exhibit there, did Montgomery Archeological Consultants make an evaluation of the effect of the Coal Hollow Mine as proposed in the permit application to the division on any historic resources that are completely outside the permit area?

A. No.

Q. Did ACD submit any information to the division addressing the impacts of the proposed Coal Hollow Mine on the Panguitch National Historic District?

A. Can you read the first part of the question again?

Q. Did ACD submit any information to the division addressing the impacts of the Coal Hollow Mine on the Panguitch National Historic District?

A. I do not -- I cannot answer that because I don't know above and beyond. I know Montgomery didn't submit anything to ACD.

Q. I'm sorry. Please repeat. Did or did not submit?

A. Montgomery has not submitted anything in the cultural resource reports to them. Although, we are not their only contractors.

Q. I understand.

MR. MORRIS: That's all the questions I -- excuse me.

MR. ALLEN: Shall we go off the record?

(Discussion off the record.)

MR. MORRIS: Back on the record.

Q. During your dealings with the State Historic Preservation Office on the Coal Hollow Mine, did there ever come a time when anyone with that office suggested that the cultural and historic resources analysis for the Coal Hollow

Alton Permit
Docket No. 2009-019
Exhibit 6

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

July 10, 2008

Wilson Martin, State Historic Preservation Officer
Division of State History
300 South Rio Grande Street
Salt Lake City, UT 84101

Subject: Decision Memo Requesting State Historic Preservation Office (SHPO) Concurrence on CRMP and Data Recovery Plan Determination, Alton Coal Development Company, LLC, Coal Hollow Mine, C/025/0005, Task ID #2910, Outgoing File

Dear Mr. Martin:

On November 2, 2007 The Division of Oil, Gas, and Mining requested your concurrence on the eligibility and effect determination for the proposed Coal Hollow Mine. The project area was inventoried by Montgomery Archaeological Consultants in June of 2005. The report from this inventory, entitled "Cultural Resource Inventory of Alton Coal Development's Sink Valley – Alton Amphitheater Project Area, Kane County, Utah" was provided to your agency along with the IMACS forms for the fifteen sites (42KA1313, 2041 – 2044, 2068, 6104 – 6110, 6124, and 6126) located during this inventory. On November 26, 2007 the Division of Oil Gas and Mining received concurrence from your agency on the eligibility and effect determination for the proposed Coal Hollow Mine.

UDOGM determined that fourteen of the sites were historic properties (sites eligible for the National Register of Historic Places). Seven of these eligible, historic properties were to be affected by the proposed coal extraction activities. Please see the table below for specific determinations of eligibility and effect.

Table 1 – Determinations of Eligibility and Effect

Site Number	NRHP Determination	Effect Determination
42KA1313	Eligible	No Effect (will be avoided)
42KA2041	Eligible	No Effect (will be avoided)
42KA2042	Eligible	Adverse Effect
42KA2043	Eligible	No Effect (will be avoided)
42KA2044	Eligible	No Effect (will be avoided)
42KA2068	Eligible	Adverse Effect

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UTAH DNR OIL, GAS & MINING

42KA6104	Eligible	Adverse Effect
42KA6105	Eligible	Adverse Effect
42KA6106	Eligible	Adverse Effect
42KA6107	Eligible	Adverse Effect
42KA6108	Eligible	Adverse Effect
42KA6109	Eligible	No Effect (will be avoided)
42KA6110	Eligible	No Effect (will be avoided)
42KA6124	Not Eligible	
42KA6126	Eligible	No Effect (will be avoided)

On May 23, 2008 the Division received a revised CRPM and Data Recovery Plan form Montgomery Archaeological Consultants under the direction of Chris McCourt from Alton Coal Development LLC. for the mitigation of the seven sites that would be "effected" by the undertaking. A copy of the revised CRPM and Data Recovery Plan are included with this letter.

The Division in consultation with Lori Hunsaker and Dr. Matt Seddon has determined that the information in the revised CRPM and Data Recovery Plan adequately addresses the mitigation of the seven sites that would be "effected" by the undertaking and respectfully requests your concurrence with our determination.

If you have any questions or concerns please contact Joe Helfrich at (801) 538-5290 or Lori Hunsaker at (801) 537-9036 or me at (801) 538-5325.

Thank you.

Sincerely,

Daron R. Haddock
Permit Supervisor

an
Enclosure
O:\025005.COL\FINAL\WG2910\SHPO concurrence.doc

Alton Permit
Docket No. 2009-019
Exhibit 7

In The Matter Of:

Utah Chapter of the Sierra Club v.
Division of Oil, Gas and Mining

Vol. I
February 22, 2010

Q & A Reporting, Inc.
1872 South Main Street
Salt Lake City, Utah 84115
801.484.2929

Original File divisionofoilgasminingvol1.ZIP.TXT
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MR. ALDER: We are going to want to review and sign the depositions.

DARON HADDOCK,

being first placed under oath, was examined and testified as follows:

EXAMINATION

BY MS. BUCCINO:

Q. Good morning. My name is Sharon Buccino. I am one of the attorneys for the Sierra Club and the other petitioners in the matter of the Coal Hollow Mine permit.

If you could identify yourself and your position with the Division of Oil, Gas and Mining.

A. My name is Daron Haddock. It's D-a-r-o-n, H-a-d-d-o-c-k. And the coal program manager for the Division of Oil, Gas and Mining.

Q. Thank you. And could you describe your specific role related to the application that was received from Alton Coal regarding the Coal Hollow Mine.

A. My responsibility is to oversee the review of permit applications. This is a new -- was a new permit application, and so I was responsible to oversee the review of that and supervise the employees that were reviewing that document.

Q. Thank you. Can you describe the documentation that was provided summarizing the division's approval of the

plan.

MR. ALDER: Our apologies. We are in the wrong place.

Q. My question is simply whether the data recovery plan relates to the same seven archeological sites that were identified previously in the determination of eligibility and effect.

MR. ALDER: It doesn't seem like we have the same document that you have. If you could provide us with a hard copy, we could compare it.

MR. DONALDSON: The data recovery plan is an appendix to the CRMP, so it will be right after it. Should be. That might have been it. Data re -- there we go. That's the last page. We don't have it.

MS. BUCCINO: We'll have it.

MR. DONALDSON: We have it in there --

MS. BUCCINO: We can provide it as an exhibit.

Q. So if you would look at the copy I just provided you, and we will mark that as Exhibit-4.

MS. BUCCINO: We will mark this as Exhibit-4.

(Exhibit-4 was marked.)

MR. ALDER: We found it.

Q. So was the data recovery plan developed to address the effects of the seven archeological sites that were identified in the previous eligibility and effect

determination?

A. To my knowledge, yes.

Q. Okay. Thank you.

And the concurrence that was provided by the SHPO on July 14, 2008, did that address the data recovery plan?

A. I'm not sure what your question is, but as far as the concurrence that SHPO gave us at that time, I believe they were concurring with our determination that those sites could be excavated and recovery done on those and that would satisfy the requirements for data recovery on those sites.

Q. Can you describe the information that was provided to the SHPO for purposes of the concurrence requested in July 2008?

MR. ALDER: Could we look at that document?

MS. BUCCINO: Sure.

MR. ALDER: We have that document in front of us right now on the computer.

Would you identify that for her, what we are looking at.

A. There was a letter sent on July 10 of 2008, sent to Mr. Wilson Martin, and basically identifying the sites that were eligible and asking for their concurrence on use of data recovery plan for that.

Q. So the information provided related to the specific archeological sites that are identified in that

Q. Were there comments received at that time -- were there members of the public that attended and made comments related to the impacts of the proposed Coal Hollow Mine on the Panguitch National Historic District?

A. Yes.

Q. Would you please describe any steps the division took to address the comments, the concerns that were made related to the impacts on the Panguitch National Historic District?

A. There were a number of letters or correspondence between the division and a number of these -- the individuals that commented, but other than that, that was pretty much the extent of, I think, the correspondence.

Q. Did the division provide any information to the State Historic Preservation Office related to the impacts of the mine on the Panguitch National Historic District?

A. No.

Q. Did Alton Coal submit information to the division regarding the proposed transportation routes for the coal that was to be mined from the Coal Hollow Mine?

A. Yes.

Q. And are you aware of what the proposed transportation route was for the coal?

A. Somewhat, yes.

Q. Was that coal to be transported through the

of trucks that left each day from the mine to transport coal?

A. Leaving the mine, no.

Q. Let me ask you whether the division made any determination related to the impacts of the proposed mine on the Panguitch National Historic District.

A. The division viewed the Panguitch National Historic District as being outside of the adjacent area, and so we did not make any determination as to the impacts of coal transportation through that area.

We analyzed the effects of coal mining reclamation operations, and that was pretty much the extent of our analysis.

Q. Just so I am understanding, so there was -- there was -- the division made a determination that the Panguitch National Historic District was outside of the adjacent area?

A. Yes.

Q. And when did the division make that determination?

A. I don't know that there was any specific moment that that was decided, but I think it's, you know, pretty much acknowledged that when coal is put into a commercial vehicle and driven on a state highway, that would be outside the scope of our review and outside the scope of our jurisdiction.

Q. Are you aware of any documentation of that

Alton Permit
Docket No. 2009-019
Exhibit 8

0015

State of Utah
DEPARTMENT OF NATURAL RESOURCES

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

9K

May 9, 2008

Chris R. McCourt, Manager
Alton Coal Development LLC
463 North 100 West, Suite 1
Cedar City, Utah 84720

Subject: Deficiencies for Cultural Resource Management Plan (CRMP) and Data Recovery Plan, Task ID #2910, Alton Coal Development LLC, Coal Hollow Mine, C/025/0005

Dear Mr. McCourt:

The Division has completed an expedited review of the Cultural Resource Management Plan (CRMP), and Data Recovery Plan as part of your application for the Coal Hollow Mine.

The Division has determined that there are some deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met, and the Division can initiate consultation with the State Historic Preservation Office. Those deficiencies are listed as an attachment to this letter.

Please respond to these deficiencies as soon as possible, but by no later than May23, 2008, such that we may efficiently process your application.

Sincerely,

Daron R. Haddock

Daron R. Haddock
Permit Supervisor

an
Attachment
O:\025005.COL\FINAL\WG2910\CRMPDEFICIENCIES.DOC

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • www.ogm.utah.gov

UTAH DNR OIL, GAS & MINING

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

May 8, 2008

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor
Priscilla Burton, Lead

FROM: Joe Helfrich, Cultural Resources

RE: Coal Hollow, Alton Coal Development LLC, Coal Hollow Mine, C/025/0005
Task # 2910

SUMMARY:

On June 14, 2007 the Division received an application for the Coal Hollow surface mine. The application was determined incomplete on August 27, 2007 and resubmitted on January 24, 2008. On March 19, 2008 the application was determined to be administratively complete. This memo will include a review of the Cultural Resources section of the regulations. This is an expedited review of the Cultural resources portion, (CRMP and Data Recovery Plan), of the applicants proposed Mining and Reclamation Plan. This review and subsequent determination will in turn expedite the required consultation with the SHPO. The applicant, Alton Coal Development LLC, has also provided the Division with an excavation permit application, received 02/28/08, which has been forwarded to The Public Lands Policy Coordination Office, PLPCO, for their review.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The application for the Coal Hollow Mine includes the following cultural resource information:

- 6/14/07 Cultural Resource Inventory
- 6/14/07 Paleontological Survey
- 6/14/07 Geologic Report of the impacts of Bedrock and Surgical Units on the Distribution of Cultural Resources at the Alton Coal Field
- 6/14/07 Data Recovery Plan for identified Cultural Resources
- 6/25/07 Revised Data Recovery Plan
- 1/9/08 Draft Outline of Cultural Resource Management Plan, CRMP
- 02/28/08 2nd Revision to Data Recovery Plan
- 02/28/08 Excavation Permit Application
- 03/14/08 CRMP

On November 2, 2007 the Division sent a letter to Dr. Matthew Seddon, State Historic Preservation Officer, requesting concurrence with the Division's determination and eligibility effect determination for the proposed Coal Hollow Mine. Dr. Seddon concurred with the Division's determination by way of correspondence dated November 20, 2007. However, because of adverse impacts and cumulative effects associated with the lease application on federal land, a Cultural Resource Management Plan, (CRMP) is being developed in addition to the Data Recovery plan. To date several revisions to the Data Recovery plan and a Cultural Resource Management Plan, (CRMP), have been submitted to the Division for review and comment. The current version of the CRMP dated 03/14/08 and Data Recovery Plan dated 02/28/08 are the documents included in this review.

CRMP

Introduction – Page 1 – Because of the need for the CRMP to fully describe the entire project area and the complexity of the issues, this section needs to be expanded. As it currently stands, the section provides primarily an introduction to the archaeological sites in the project area and a description of the phases of excavation. To fully describe the project area and cover the compliance needs of UDOGM, OSM, BLM, and other involved agencies, this description needs to:

1. ***Describe the entire project area, making clear the distinctions between private, BLM, and transportation routes.***
2. ***Describe all the relevant laws (e.g. NEPA, Section 106, Utah Code 9-8-404, etc.) and how they apply to the project.***
    a. ***It is both acceptable and desirable for this description to make the necessary distinctions between directly and indirectly connected actions. For example, this is the necessary and appropriate place to describe how the private lands/UDOGM action is legally separate from the BLM action.***
    b. ***Indirect effects, such as transportation should be described here.***
    c. ***The involved agencies and their roles should also be described in this section.***
3. ***The section should then conclude with a clear description that all involved agencies are aware that while not directly connected, the actions are related, and that therefore a comprehensive approach to Section 106 and Utah Code 9-8-404 compliance is being undertaken via this document.***
4. ***After that point, summarizing the general cultural resources approach as described would be appropriate.***

Effected (sic) Environment – Pages 1 on – Please note that the correct term is "Affected Environment." This section needs to be revised to:

1. ***Include the entire project area, including potential transportation routes, with maps, rather than focusing solely on the archaeology.***
2. ***Be clear, this is not solely a document describing archaeology, it is a compliance document describing the entire project. It needs to accurately describe the entire compliance project and all the compliance issues.***
3. ***Include in Table 2 other cultural resources such as the National Register of Historic Places Historic District in Panguitch.***

Description of Phases – Page 1 and Page 23-24

Each phase should be used to supply data for the subsequent phases. As these phases are currently described, this is not clear. Phase I is described as "mitigation of immediate impacts," and the descriptions read as if it has minimal relation to the other phases. There is a sentence at

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Exhibit 9

will be impacted by Alton Coal Development's proposed Coal Hollow surface mining plan. This phase of the project is located entirely on private lands, is in consultation with UDOGM, SHPO, and PLPCO and in compliance with Utah Code 9-8-404. Phase I data recovery and research will serve to inform possible subsequent phases of research through the collection of data regarding geomorphology, site depositional processes, depositional preservation, and erosional processes that have been operative in the project area, as well as chronology, artifact distribution, site function, subsistence, technology, and settlement patterns. Research would proceed to Phase II if all of the following events occur: 1) the BLM completes an EIS for the Alton Coal Tract federal coal lease application; 2) the BLM decides to offer the Alton Coal Tract for lease; 3) the lease is offered for competitive bid; 4) Alton Coal Development, LLC successfully acquires the lease. Phase II consists of an assessment of Phase I data and methods, the determination of comprehensive research questions, the development of a testing design, and the testing of eligible sites. Phase II accompanies a proposed federal action, which triggers compliance with Section 106 of the NRHP Act and NEPA and is in consultation with the BLM, UDOGM, and SHPO. Phase III consists of the refinement of overarching research questions and methods based on the results of Phases I and II, the selection of sites for mitigation, and the mitigation of the selected sites. Phase III also accompanies the proposed federal action consistent with Section 106 of the NRHP Act and NEPA and in consultation with the BLM, UDOGM, and SHPO. During the mining of private and federal coal it may be necessary to identify and mitigate the effects of associated actions (pipelines, power lines, roads, etc.) as such actions are proposed during the course of mine development.

This document will first discuss the affected environment including the physiography, climate, plant and animal resources, current land uses and impacts, and the cultural resources. The next section will discuss the consequences of each project phase, a description of each research phase, and stipulations for the production and review of mitigation plans. The document will then conclude with a brief summary of the project.

AFFECTED ENVIRONMENT

This section discusses the relevant aspects of geography, geology, climate, and biological resources. These topics set the stage for a discussion of cultural history, archaeological inventories and investigations, and the cultural resources documented in the project area. The affected environment includes the Coal Hollow project area, the Alton Coal Tract project area, and the reasonably foreseeable transportation route. The Coal Hollow and Alton Coal Tract project areas are located in the Alton Amphitheater and Sink Valley localities, south of the town of Alton, Kane County, Utah. The legal description of the project area, sans the transportation route, is Sections 12, 13, 24, and 25 of Township 89 South, Range 6 West; and Sections 7, 18, 19, 20, 30, and 31 of Township 89 South, Range 5 West (Figure 2). The reasonably foreseeable transportation route (Figure 3) extends west from Alton on CR-10/Cistern Road, north along US-89 through the NRHP Historic District in Panuitch to SR-20; west along SR-20 to Insterstate 15 and then south along Interstate 15 to Cedar City; and finally along Iron Springs Road to Iron Springs.

Physiography

The project area lies within the Grand Staircase Section physiographic subdivision of the Colorado Plateau (Stokes 1986). This area is characterized by a series of cliffs and terraces that rise from the Grand Canyon in Arizona to the summit of the High Plateaus in Utah. This section is bounded on the east by the East Kaibab Monocline, on the west by the Hurricane Fault, on the north by the edges of the various high plateaus, and on the south by the Grand Canyon of Arizona.

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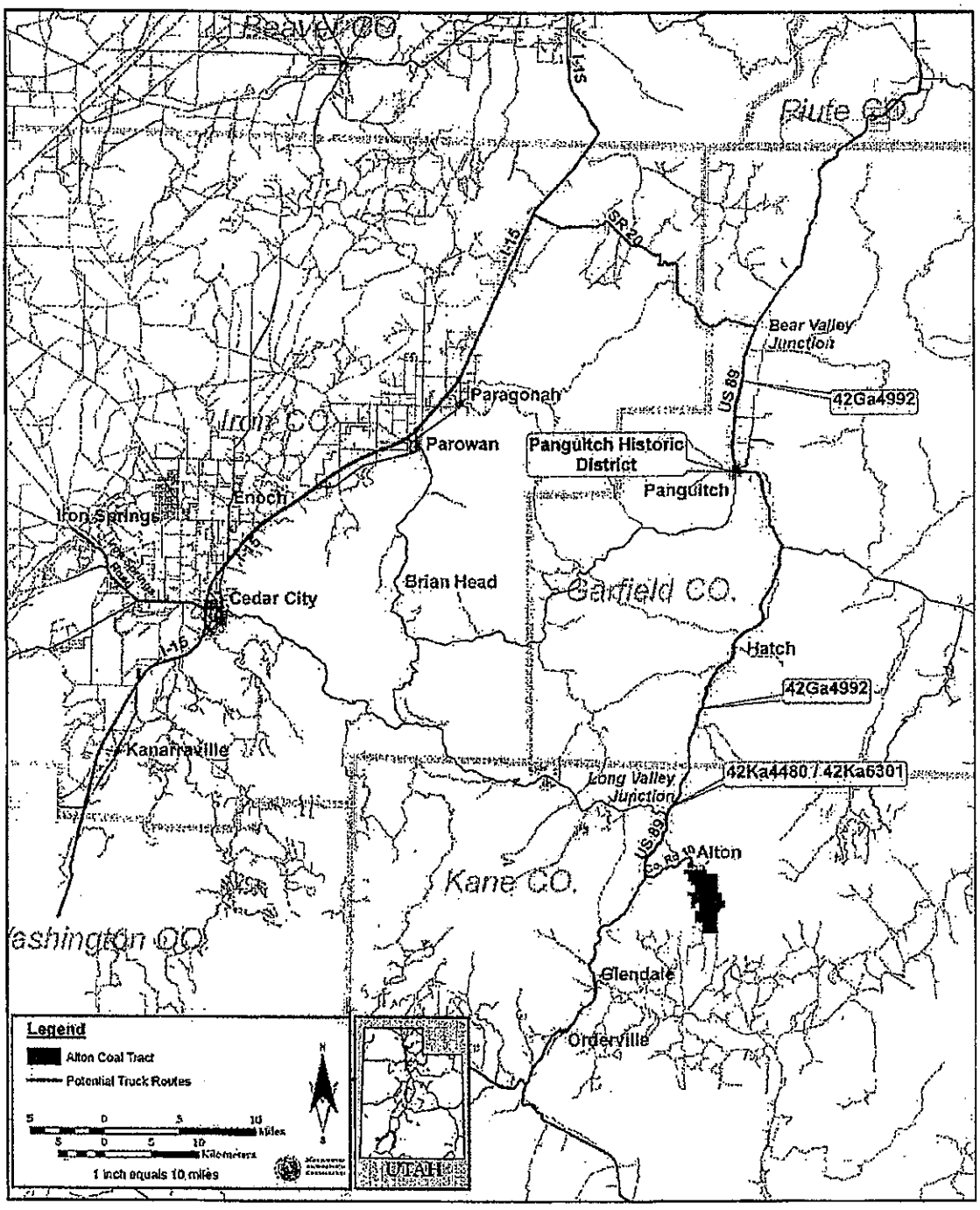

Figure 3. Reasonably Foreseeable Transportation Route, Kane, Garfield, and Iron Counties, Utah.

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0027

Incoming
C/025/0005

From: Joe Helfrich
To: OGMCOAL
Date: 5/6/2008 7:58 AM
Subject: Fwd: Comments on Alton CRMP and Treatment Plan
Place: OGMCOAL
Attachments: 07-1471Final.doc

please file in C/025/0005 incoming task # 2910 thanks, Joe

>>> Matthew Seddon 5/5/2008 3:43 PM >>>
Joe,

Attached are the comments Lori and I worked up. See you tomorrow at 1:30.

Oh, also, I've brought our buildings specialists, primarily Chris Hansen, in the loop. He can help you with analysis of effects to Panguitch. He is going to try and be in on the call tomorrow.

Thanks!

Matt

Matthew T. Seddon, Ph.D., RPA
Deputy State Historic Preservation Officer
Utah State Historic Preservation Office
300 Rio Grande St.
Salt Lake City, UT 84101
801-533-3555
FAX: 801-533-3503
mseddon@utah.gov
http://history.utah.gov/

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Docket No. 2009-019
Exhibit 12

MEMORANDUM

To: Joe Helfrich, UDOGM

From: Matt Seddon, State Historic Preservation Office and Lori Hunsaker, Public Lands Policy Coordination Office

Date: May 6, 2008

Subject: Comments on Alton Coal Cultural Resource Management Plan (CRMP) and Data Recovery Plan (07-1471)

cc:

The attached comments are for UDOGM's consideration on the above referenced documents. We recommend that if UDOGM, the proponent, the proponent's consultant, or any other party feels that these comments are unclear or they do not wish to follow the recommendations that communication with UDOGM first and then our office(s) be followed prior to finalizing the draft plan.

Comments on Cultural Resource Management Plan (CRMP)

We recommend that prior to submitting the plan as part of a consultation package under Utah Code 9-8-404 that UDOGM **ensure** that the following changes are made:

Introduction – Page 1 – Because of the need for the CRMP to fully describe the entire project area and the complexity of the issues, this section needs to be expanded. As it currently stands, the section provides primarily an introduction to the archaeological sites in the project area and a description of the phases of excavation. To fully describe the project area and cover the compliance needs of UDOGM, OSM, BLM, and other involved agencies, this description needs to:

1. Describe the entire project area, making clear the distinctions between private, BLM, and transportation routes.
2. Describe all the relevant laws (e.g. NEPA, Section 106, Utah Code 9-8-404, etc.) and how they apply to the project.
    a. It is both acceptable and desirable for this description to make the necessary distinctions between directly and indirectly connected actions. For example, this is the necessary and appropriate place to describe how the private lands/UDOGM action is legally separate from the BLM action.
    b. Indirect effects, such as transportation should be described here.
    c. The involved agencies and their roles should also be described in this section.
3. The section should then conclude with a clear description that all involved agencies are aware that while not directly connected, the actions are related, and that therefore

a comprehensive approach to Section 106 and Utah Code 9-8-404 compliance is being undertaken via this document.

4. After that point, summarizing the general cultural resources approach as described would be appropriate.

Effected (sic) Environment – Pages 1 on – As long as we are commenting on more substantial matters, we note that the correct term is "Affected Environment." This section needs to include the entire project area, including potential transportation routes, with maps, rather than focusing solely on the archaeology. To be clear, this is not solely a document describing archaeology, it is a compliance document describing the entire project. It needs to accurately describe the entire compliance project and all the compliance issues.

Other cultural resources such as the National Register of Historic Places Historic District in Panguitch should be mentioned in Table 2.

Description of Phases – Page 1 and Page 23-24

The understanding was that each phase would be used to supply data for subsequent phases. As these phases are currently described, this is not clear. Phase I is described simply as "mitigation of immediate impacts," and the descriptions read as if it has minimal relation to the other phases. We agree that there is a sentence at the bottom of page 23 that does relate Phase I to other phases in a minimal manner, but this relationship needs to be more clearly integrated with subsequent phases.

In the introduction, these phases need to be more clearly described with the relationships spelled out directly.

In the expanded discussion, the exact way the data from Phase I will tie to subsequent phases needs to be made clear. For example, shouldn't the question outlined in Phase II (what is the nature, extent and site integrity of these sites be appropriate here? And if these sites have data that is capable of addressing larger research questions wouldn't they pass into the next phase? How would we expect the Phase I data to inform our research trajectory any more than Phase II? These issues need to be clarified.

The only other suggestion would be to (either in the CRMP or in the Data Recovery Plan) clearly describe how sites x, y, & z (presumably all prehistoric) are expected to relate to the other sites in the BLM area – that is how do the Archaic sites in the private area compare to the Archaic sites in the BLM area and the Proto Historic private to BLM?

Consequences of Project Phases, Phase I, Page 23 (also, Phase III Page 24)

The description of the public involvement process on the bottom of this page and on the bottom of Page 24 does not meet our previous suggestions. In an email to the entire project team that we sent on 1/22/2008 we stated:

Given the high public interest in this project, and the overall size of the potential effects, I recommend that the public be more involved than is usual (i.e. be more than simply the passive recipients of whatever mitigation project we archaeologists deem they are worthy of receiving). I suggest that planning for public input into the research design and excavation approach be established in the CRMP. Let's define "the public" based on the interested parties (more than just USAS, probably also members of the towns of Alton and the surrounding area, tribes, as well as other citizens of the state). Let's then find out what the public are interested in learning and receiving from this project. It's their heritage,

their interests should go right into the research design. The public should also be consulted early and often regarding "public mitigation products." We should not simply decide what they want out of it. The CRMP seems to be a good place for laying out a good process for both identifying the relevant public and defining meaningful consultation with that public.

As currently stated, public involvement has already determined that only USAS chapters are relevant. Furthermore, the public involvement occurs well into mitigation efforts and has already determined a particular public outcome. This does not appear to meet the comments provided above. We reiterate our recommendation that the CRMP lay out a public involvement plan that:

1. Makes efforts to fully define and identify stakeholders (beyond USAS) who have interests in the cultural resources in this project area. This needs to start at the beginning of the project, not at Phase III (as suggested on Page 24). As currently stated, the Phase I public outcome has already been determined and the only open-ended input will be taken when Phase III is well underway.
2. Provides a process for incorporating public interests and desired mitigation outcomes into the decision of what public products will be part of the project.

In other words, we need to find the public, listen to what they want, weigh and consider the input, and then provide public output that meets those interests and not what a bunch of professional archaeologists think that some small segment of the public would want. Such an approach should help reduce public concern and provide a more meaningful outcome.

Consequences of Project Phases, Phase II, Page 24 – As currently stated this reads "Research would proceed to Phase II, upon Alton Coal Development, LLC's acquisition of federal coal managed by the Bureau of Land Management." We find this statement very confusing as we have heard over and over that such acquisition is not guaranteed and that lack of guarantee is what separates the two actions (private and BLM). Please clarify to us and in the document what the relationship is in order that it is clear. Notably, this statement also reads as predetermination, which could be problematic in a NEPA setting. We recommend that NEPA specialists, the proponent, and other outside parties who have a clear understanding of this document and the overall laws and process read this entire document carefully before it is finalized.

We recommend that prior to finalizing the plan that UDOGM **follow up and make sure that as time progresses** that the following changes are made. Minimally they should be completed **prior to entering Phase II** of the process:

Overarching Research Design (Currently missing from CRMP)

In the email on 12/18/2007, we communicated that:

Lori and I were initially confused about the relationship of the treatment plan to the agreed-upon CRMP. We now understand it as something that will be part of the overall CRMP, and the research design specified in the draft document will basically form the nucleus of the sections of the CRMP research design that cover non-diagnostic open-air lithic scatters and the historic research design.

Currently there is only a culture history, no research design in the CRMP. The CRMP will need an overarching research design prior to going into Phase II. Assuming that the research questions posed in the current Phase I treatment plan are the "nucleus" as

discussed in the comments above, for the moment these could be inserted into the CRMP. However, prior to ultimate finalization of the CRMP, we have the following comments that we recommend be incorporated into this overarching research design:

We previously commented on a draft of this plan on 12/18/2007 in an email to the authors with copies to other team members. Our comments will therefore be confined to areas where those previous comments appear to have not been addressed.

Research Domains and Questions – Pages 24 on – In our email of 12/18/2007 we stated:

Lori and I recommended that the broader research design incorporate the spate of recent work (e.g. Kern, Sand Hollow, HRA's work near St. George, Joel Janetski's work in Escalante) that provides refined research questions for the broader region and which are applicable to the Alton Amphitheater/Sink Valley area.

Aside from a single reference to one portion of the Kern report (page 28), and a very general question about "how systems compare" to Coral Canyon, Quail Creek, and Sand Hollow sites (page 28) this comment does not appear to have been addressed in a substantial manner. More refined research questions could actually make data recovery and subsequent research more efficient. We recommend the following:

Research Domain 1 – Chronology -

Berry, Chapter 27 in Kern Report Vol IV – Page 581 on Virgin Anasazi dating

Reed, Chapter 29 in Kern Report Vol IV, Page 601, summarized projectile point model could potentially be tested or data from project could be evaluated in terms of model.

Revised chronologies have been proposed by Seddon and Reed, Kern Report Vol VI, Chapter 1, as well as for the Archaic period Vol IV, Chapter 10. These models could be proposed as testable or open to refutation or refinement with specific description of how the data from this area can be used for such issues.

Research Domain 2 – Site Function, Use History, and Artifact Distributions –

Chapter 11 of the BYU Sand Hollow report describes specific site functional types and models that could be evaluated. These types appear amenable to investigation or testing with data from the project sites.

Vol IV, Chapter 22 of the Kern report provides a detailed discussion of Southern Paiute site function and settlement organization and provides a limited test of the model. It seems that the large number of Southern Paiute sites in this project area could really help test this model if the research design were to explicitly consider this research.

Research Domain 3 – Subsistence and Environment

The Sand Hollow report Chapter 11, pages 422-426 provides a detailed discussion of Virgin Anasazi subsistence that can be used to provide more specific research questions.

The Sand Hollow report Chapter 11, pages 426-27 proposes that resource stress results in particular patterns of intensification that the large number of sites in the project area appear directly amenable to addressing.

The Sand Hollow report, Chapter 11, pages 428-434 (and referencing a significant body of work) examines questions of Southern Paiute horticulture that the large number of Late Prehistoric sites seem able to address.

The Sand Hollow report, Chapter 11, pages 435-439 proposes a model of post-contact Southern Paiute subsistence that the sites in the project area may be able to address.

The model of diachronic patterns in faunal exploitation in the Kern report, Vol 1V, Chapter 30 and the model of diet breadth through time (Chapter 31) appear to provide fodder for relevant research questions. These questions can be much more refined than the very general questions posed in 3.2 of the draft report.

Research Domain 4 – Technology

The Kern report, Vol IV, Chapter 34 refines and defines a model of technology and mobility that can be used to develop more refined questions, particularly the conclusions on Page 683.

If thermal features are of interest, as suggested by question 4.2, the Kern report, Vol IV Chapter 9 provides a very explicit model of variation in thermal feature types over time that could be tested if features are found in the project area.

Models of pottery manufacture and mobility, such as Simms and Bright and the Kern report, Vol IV, Chapter 17, appear very very relevant to this project area.

The Kern report, Vol IV Chapter 38, provides models of trends in ground stone technology that could be used to refine the ground stone technology issue questions (3.3 and to some degree 4.1)

Research Domain 5 – Settlement Patterns and Mobility

The Sand Hollow report, chapter 11, pages 441-443 provides a number of theoretical models (population packing, hinge points, Virgin Anasazi subsistence, etc.) that while applied in the Sand Hollow report to the St. George Basin do not seem irrelevant here and which could be adapted for this project.

Vol IV, Chapter 14 of the Kern report, while comparing Fremont and Virgin Anasazi settlement patterns does provide new models of Virgin Anasazi settlement type that could be explicitly examined via research questions based on the model.

Vol IV, Chapter 20 of the Kern report provides a model of Late Prehistoric demography that, given the long time span of the sites in the project area and the large number of Late Prehistoric sites, could be tested with data from the project area.

Given the large number of sites and time breadth in the project area, the issues raised in the model of land productivity and hunter gatherer settlement strategies in the Kern Report (Vol

IV, Chapter 33) could be adapted or used as the basis for forming more refined questions than the ones currently posed.

Comments on Data Recovery Plan

Many of the comments on the original data recovery plan have been addressed, thank you. We have the following additional comments. We recommend that prior to submitting the plan as part of a consultation package under Utah Code 9-8-404 that UDOGM **ensure** that the following changes are made:

Research Questions

As currently written, these research questions seem too broad for the collection of sites present. Remember that our comments on 12/18/2007 assumed that these questions would actually be for the CRMP, where broad over-arching questions forming the context for site-specific research issues should be posed. In the case of these sites, the research questions are so broad that they probably cannot be addressed by the limited range of sites present and the limited work proposed.

To adjust, these research questions should be tailored specifically to the sites in question and for what they can address. Clearly describe how sites x, y, & z (presumably all prehistoric) are expected to relate to the other sites in the BLM area – that is how do the Archaic sites in the private area compare to the Archaic sites in the BLM area and the Proto Historic private to BLM.

The geomorphological element is key here especially for informing Phase II and III, but again, we think the real first or otherwise question here is what data do these sites really offer. Also, there aren't any Fremont/Anasazi sites in this phase – how will that inform later questions? Finally, what if the historic site (or the others for that matter) yield data that goes beyond the scope of your original questions? Will those sites proceed to the next phase?

Goal 2 of the original draft, surface and subsurface

This goal appears to have completely disappeared. It was highly relevant, and we had only suggested on 12/18/2008 that the question be refined a bit. We stated:

> In terms of the surface/subsurface question, which we agreed was good and was at least partially met by the excellent random sampling strategy (a provision for expansion would probably cover most other areas), we suggested further clarification of what that question entails. Thus, instead of simply asking "does the surface represent the subsurface," we recommended elaborating into all the related questions like "Do surface diagnostics reflect overall site dating?" "Are the functional interpretations derived from the surface assemblage supported by the subsurface assemblage?" "Does a site that appears to have significant data based on surface information have such data and what, if any, indicators in the surface assemblage suggest the presence of significant subsurface deposits?" "How much excavation is necessary in order to obtain a representative sample of subsurface artifacts?" "Can geomporphological evidence be effectively used to determine if the surface and subsurface assemblages are chronologically and functionally related?" And so on. Refining these questions may require slight refinements in the excavation/analysis approach.

Why has this question disappeared? We recommend that if it was considered relevant in the first draft, that it appears to still be relevant for the second draft with some refinement. In fact, this question is perhaps the most relevant question that the current collection of the

sites can address. We do not understand why an entire research question has evaporated from the second draft.

Production and Review

MOAC can not stipulate review period timeframes. There are rules, etc. set forth by agencies for agencies and generally these are adhered to; however, agency priorities, protocols, and processes may sometimes conflict with submission dates and review timeframes.

Curation

MOAC does not have a 2008 Provisional Repository Agreement (although the form has been submitted) with the Utah Museum of Natural History. Has MOAC contacted Kara Hurst, Registrar from the UMNH, and obtained an actual Repository Agreement? For the phase I data recovery, there will need to be a legally executed, signed, transfer of title for the prehistoric artifact recovered from private land, which will grant title to the UMNH. Finally, we would like to see some outline for how historic artifacts will be curated.

Alton Permit
Docket No. 2009-019
Exhibit 13

0011

#3371

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

October 15, 2009

TO: Internal File

THRU: Daron Haddock, Permit Supervisor

FROM: Priscilla Burton, CPSSc, Environmental Scientist III, Team Lead PWB by SQS

SUBJECT: Permit Application – Coal Hollow Mine, Alton Coal Development, LLC, Kane County, C/025/005, Task ID #3371,

SUMMARY:

On June 16, 2009, August 27, 2009, October 9, 2009 and October 14, 3009 the Division received responses to the deficiencies outlined in Coal Hollow review Task 3100, dated March 26, 2009.

The application was determined to be administratively complete on March 14, 2008 (2008/Outgoing/0001.pdf). Alton Coal Development, LLC provided public notice for the proposed mine on March 26 through April 16, 2008 in the Southern Utah News. The Division notified local, state, and federal governing agencies on March 19, 2008 (Outgoing/0002.pdf). The State Planning Coordinator, Mike Mower, was included in the distribution list. On March 31, 2008, the Southern Utah Wilderness Alliance (SUWA) was sent an electronic version of the agency notification letter.

The Division received many comments in response to the public notice (see 2008/Incoming) and several requests were made for an informal conference. That conference was held June 16, 2008 in Alton, Utah. The Informal Conference written comment period ended on June 20, 2008. Twelve written comments were received, including a petition requesting further studies of natural and cultural resources in the adjacent area. The petition provides contact information for 37 signatories. This petition was not considered classified by Division management as an Unsuitability Petition, per R645-103-420.

The information provided by the Applicant has met the requirements for public notification. Written findings from the Informal Conference were made on July 18, 2008 (2008\Outgoing\0024.pdf). The Findings required that the Division or County provide for another public hearing on the relocation of the County road to determine whether the public

- Mulch or tackifier application for unseeded topsoil/subsoil stockpiles.
- Seeding of topsoil stockpiles in existence longer than one year.
- Tackifier on graded, unseeded reclamation areas.
- Water sprays (as needed) for material handling points (crushing, screening, transfer, loading, dumping); for excavation and pushing activities; for construction and demolition; for drilling and blasting;and for cleared areas.
- Water sprays or chemical treatment or gravel as needed on unpaved roads and yard areas.
- Synthetic cover on haul truck beds as needed.
- Coarse gravel at entrances to and exits from public roads.

The App. 4-5 fugitive dust control plan acknowledges that monitoring and evaluation are requirements of R645-301-423 et seq, for surface mines producing greater than 1,000,000 tons/year and will be enforced by the Division. The Coal Hollow mine projects a 2 million ton annual production rate. The fugitive dust control plan addresses the control of fugitive dust from material storage, material handling, haul roads, yard areas, and cleared, leveled, unvegetated areas. The App. 4-5 monitoring program includes the following:

- The site supervisor will periodically observe the dust at the permit boundary to determine the level of control needed.
- Level 1, 0 – 5% opacity at the permit boundary triggers increased watering frequency and an application of magnesium chloride on the Out of Pit haulroads.
- Level 2, 5 – 10% opacity will result in even more water and/or magnesium chloride applications
- Level 3, Greater than 10% at the permit boundary triggers increased watering frequency and an application of magnesium chloride on the Out of Pit haulroads.
- Production will stop if dust can not be reduced to 5 – 10% opacity.
- Records of watering will be provided in the Annual report.

The monitoring program specifies that EPA Method 9 will be used along the permit boundary to determine opacity from fugitive dust, non-point sources such as spoil piles, open disturbed areas, pits, etc. Jon Black of Utah DAQ, indicated that EPA Method 9 was occasionally used for fugitive dust control, although it is more frequently used for point source evaluations. Chris McCourt agrees with the difficulty of using method 9 for fugitive dust monitoring and said that he and his consultant struggled with this issue (personal communication 10/7/2009).

Findings:

The information provided in the application may meet the requirements of the Air Quality rules for **R645-301-423.200,** however, the Division does not provide training for permitting staff or inspectors in the application of EPA Method 9. Consequently it is recommended that the Division request that the Utah DAQ evaluate this fugitive dust control

plan prior to issuance of the air quality permit, under the auspices of the MOU to cooperate for the purposes of permitting, signed on September 1, 1999.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

Analysis:

Topsoil Removal and Storage

Mine pits and mining sequence are described in Section 523. Overburden removal is shown on Dwg 5-16. Operational sequence and contemporaneous reclamation sequence is shown on Dwg 5-17 through 5-19.

The topsoil salvage operation is described in Section 231.100 through Section 233.100-400 and in Section Four of Appendix 2-1. Table 4-2 of Section Four in Appendix 2-1 provides the average topsoil salvage depth and the subsoil salvage depth by map unit. The topsoil salvage depth ranges from 5 to 10 inches. Subsoil suitability varies due to high pH, clay content, and carbonate accumulations. The suitable subsoil salvage depth ranges from 1 to 55 inches. Appendix 2-1, Table 4-1 outlines the soil suitability criteria to be used to determine soil suitability. Due to this wide variation in suitability of subsoil the application states that topsoil and subsoil salvage will be monitored as described in Section 232.500 and Section 231.100 and Appendix 2-1, p. 4-2 under the direction of a certified soil professional.

Dwg. 2-2 indicates salvage and stockpiling from less than half of the permit area, with the rest of the topsoil being live-hauled to contemporaneous reclamation sites. Table 4-5 provides the expected topsoil and subsoil recovery by year and acreage disturbed. Tables 4-3.1, 4-3.2, 4-3.3 provide similar information by map unit and acreage. Table 4-4 provides topsoil and subsoil salvage for facilities construction. According to plan (Section 232.500), topsoil and subsoil from year-one facilities construction areas will be stockpiled as shown on Drawing 2-2.

Three topsoil stockpiles and a subsoil pile will be located as shown on Drawing 2-2. Dwg. 2-2 describes the average depth and footprint area for each stockpile. From the information on Dwg 2-2, the combined volume of soil stored in stockpiles is 302,000 cu yds, of which 188,000 cu yds is topsoil. Stockpiled soil will be placed such that side slopes will not exceed 3h:1v and the piles will be bermed. The piles will be seeded with an interim mix of grasses described in Section 234.230. All totaled, the stockpiled soil will cover 17.5 acres.

Alton Permit
Docket No. 2009-019
Exhibit 14

In The Matter Of:

Utah Chapter of the Sierra Club v.
Division of Oil, Gas and Mining

Vol. I
February 22, 2010

Q & A Reporting, Inc.
1872 South Main Street
Salt Lake City, Utah 84115
801.484.2929

Original File divisionofoilgasminingvol1.ZIP.TXT
Min-U-Script® with Word Index

Were there 30 to 50 letters or other comments directed specifically to the Panguitch National Historic District?

A. No. When I made that comment, I was thinking of the number of comments in total that were received, and those that were directed specifically to the Panguitch National Historic District were much fewer in number, probably less than ten.

MR. ALDER: I won't ask any other questions at this time.

(Break was taken from 12:11 p.m. to 1:39 p.m.)

PRISCILLA BURTON,

being first placed under oath, was examined and testified as follows:

EXAMINATION

BY MS. BUCCINO:

Q. Good afternoon. My name is Sharon Buccino, and I am one of the attorneys representing Sierra Club and the other petitioners in the matter addressing the Coal Hollow Mine permit application.

If you could just identify yourself and describe your position within the division.

A. My name is Priscilla Burton, and I am a soil scientist, and I work on various coal mine applications, usually reviewing soils information or related information,

you have related to the air quality issues? Are there other permits that you worked on air quality issues for?

A. Yes. Emery Deep, Wildcat loadout. Those are two that come to mind. There are probably others.

And the reason being that most often fugitive dust lands on undisturbed ground and affects the adjacent topsoil, and so I am very often am involved that way.

Lila Canyon. I did the air quality on Lila Canyon as well.

Q. Lila Canyon?

A. Uh-huh (affirmative).

Q. Do you have experience in evaluating monitoring protocol for fugitive dust?

A. No, I don't. And that's my point in the finding.

Q. So will it be, then, the division of air quality that evaluates the effectiveness of the fugitive dust control plan, including the monitoring protocol?

A. Yes, I hope that that is the case.

And when I was doing the interview and when I was writing -- before I wrote this finding, I made some telephone calls up to the Wyoming Land Quality Division and discussed with them how do they handle these large production mines, surface mines, who does their air quality permitting, and they indicated that in the early days of their program, that they used to evaluate and approve these

where we decided that the clear skies issue -- as a team, the division decided that this issue was really better addressed by the environmental impact, NEPA, analysis that was ongoing with the federal resist.

Q. Is that with regard to the light --

A. To the night sky.

Q. So the effect of lighting --

A. Is that what we are talking about?

Q. Yes. I just didn't know that you -- in response to that question, you didn't discuss the lighting issue, and I'm just wondering how you dealt with that separately or if you did deal with it separately.

A. That was kind of joint wording in a different memo under the engineering review. So it's under facilities mining -- I can give you the topic heading if you want, but that's just where that --

Q. I just wanted to clarify that there were -- is it correct that there were two issues: One was potential fugitive dust effect, and the other was potential night light effect?

A. Right.

FURTHER EXAMINATION

BY MS. BUCCINO:

Q. Let me follow up on that point.

In your professional opinion as an environmental

scientist at the division, is there a connection, is there a relation that the fugitive dust has related to the clarity of the night skies?

A. They both would affect the clarity of the night skies, fugitive dust and lighting.

Q. Correct.

A. But one is a -- yeah. Different effects, yeah.

Q. But they act together to affect the clarity of the night skies; is that correct?

A. Yeah, I think that's correct.

FURTHER EXAMINATION

BY MR. ALDER:

Q. Just one other follow-up.

You said there was a letter from the Forest Service that you received but you said you believed it was a letter that was addresses to the BLM. And what was the letter addressed to the BLM? What was the subject matter of that letter? Why was there a letter addressed to the BLM?

A. The BLM was conducting scoping for their environmental impact statement for the federal resists that were adjacent to this fee, coal mine application. And they did that, I think, in 2007, in February or March of 2007.

And so the Forest had already written a letter to the BLM outlining their concerns, and when we received a

Alton Permit
Docket No. 2009-019
Exhibit 15

EMISSION MEASUREMENT TECHNICAL INFORMATION CENTER
NSPS TEST METHOD

Prepared by Emission Measurement Branch
Technical Support Division, OAQPS, EPA

EMTIC TM-009
October 25, 1990

Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources

INTRODUCTION

(a) Many stationary sources discharge visible emissions into the atmosphere; these emissions are usually in the shape of a plume. This method involves the determination of plume opacity by qualified observers. The methods includes procedures for the training and certification of observers and procedures to be used in the field for determination of plume opacity.

(b) The appearance of a plume as viewed by an observer depends upon a number of variables, some of which may be controllable in the field. Variables which can be controlled to an extent to which they no longer exert a significant influence upon plume appearance include: angle of the observer with respect to the plume; angle of the observer with respect to the sun; point of observation of attached and detached steam plume; and angle of the observer with respect to a plume emitted from a rectangular stack with a large length to width ratio. The method includes specific criteria applicable to these variables.

(c) Other variables which may not be controllable in the field are luminescence and color contrast between the plume and the background against which the plume is viewed. These variables exert an influence upon the appearance of a plume as viewed by an observer and can affect the ability of the observer to assign accurately opacity values to the observed plume. Studies of the theory of plume opacity and field studies have demonstrated that a plume is most visible and presents the greatest apparent opacity when viewed against a contrasting background. Accordingly, the opacity of a plume viewed under conditions where a contrasting background is present can be assigned with the greatest degree of accuracy. However, the potential for a positive error is also the greatest when a plume is viewed under such contrasting conditions. Under conditions presenting a less contrasting background, the apparent opacity of a plume is less and approaches zero as the color and luminescence contrast decrease toward zero. As a result, significant negative bias and negative errors can be made when a plume is viewed under less contrasting conditions. A negative bias decreases rather than increases the possibility that a plant operator will be incorrectly cited for a violation of opacity standards as a result of observer error.

(d) Studies have been undertaken to determine the magnitude of positive errors made by qualified observers while reading plumes under contrasting conditions and using the procedures set forth in this method. The results of these studies (field trials) which involve a total of 769 sets of 25 readings

each are as follows:

(1) For black plumes (133 sets at a smoke generator), 100 percent of the sets were read with a positive error of less than 7.5 percent opacity; 99 percent were read with a positive error of less than 5 percent opacity. (Note: For a set, positive error = average opacity determined by observers' 25 observations -average opacity determined from transmissometer's 25 recordings.)

(2) For white plumes (170 sets at a smoke generator, 168 sets at a coal-fired power plant, 298 sets at a sulfuric acid plant), 99 percent of the sets were read with a positive error of less than 7.5 percent opacity; 95 percent were read with a positive error of less than 5 percent opacity.

(e) The positive observational error associated with an average of twenty-five readings is therefore established. The accuracy of the method must be taken into account when determining possible violations of applicable opacity standards.

1. PRINCIPLE AND APPLICABILITY

1.1 Principle. The opacity of emissions from stationary sources is determined visually by a qualified observer.

1.2 Applicability. This method is applicable for the determination of the opacity of emissions from stationary sources pursuant to § 60.11(b) and for visually determining opacity of emissions.

2. PROCEDURES

The observer qualified in accordance with Section 3 of this method shall use the following procedures for visually determining the opacity of emissions.

2.1 Position. The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140° sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction and, when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

2.2 Field Records. The observer shall record the name of the plant, emission location, facility type, observer's name and affiliation, and the date on a field data sheet (Figure 9-1). The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and

Figure 9-1. Record of visual determination of opacity.

Company

Location

Test No.

Date

Type Facility

Control Device

Hours of Observation

Observer

Observer Certification Date Observer Affiliation

Point of Emissions Height of Discharge Point

CLOCK TIME	Initial			Final
OBSERVER LOCATION				
Distance to				
Direction from				
Height of				
BACKGROUND				
WEATHER CONDITIONS				
Wind Direction				
Wind Speed				
Ambient				
SKY CONDITIONS (clear, overcast, % clouds, etc.)				
PLUME DESCRIPTION				
Color				
Distance				
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start - End	Sum	Average

Readings ranged from ___ to ___ % opacity.

The source was/was not in compliance with ___ at the time evaluation was made.

Figure 9-2. Observation record.

Page ___ of ___

Company _____ Observer _____

Location _____ Type facility _____

Test Number _____ Point of emissions _____

		Seconds				Steam plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							

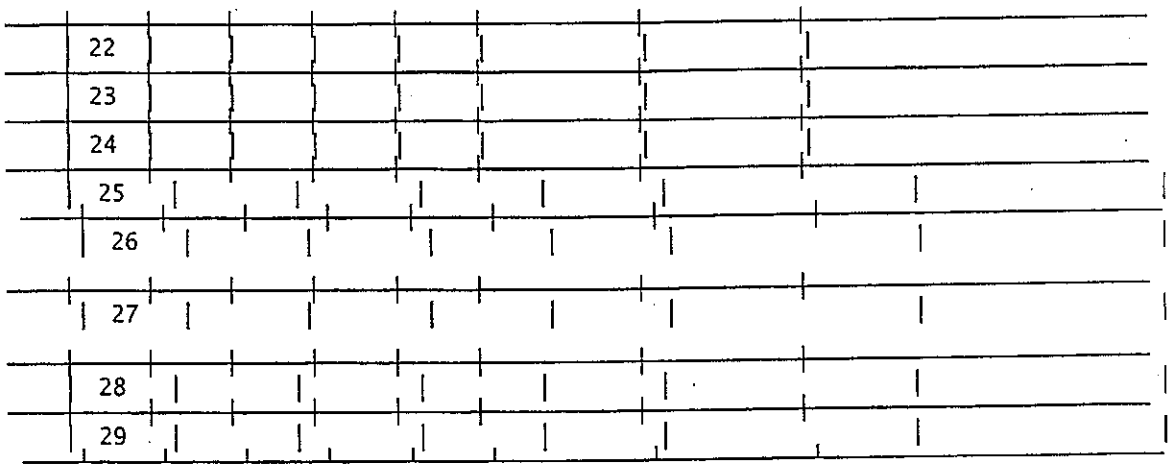
22
23
24
25
26
27
28
29

Figure 9-2. Observation record (continued).

Page ___ of ___

Company _____ Observer _____

Location _____ Type facility _____

Test Number _____ Point of emissions _____

		Seconds				Steam plume (check if applicable)		Comments
Hr	Min	0	15	30	45	Attached	Detached	
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
	41							
	42							
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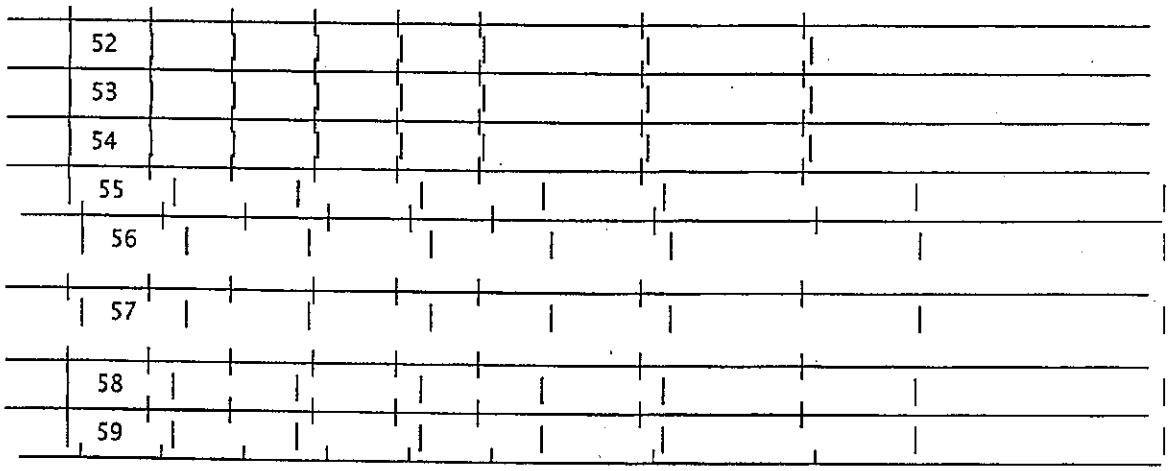
	44							
	45							
	46							
	47							
	48							
	49							
	50							
	51							


52
53
54
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58
59

2.3 Observations. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume but instead shall observe the plume momentarily at 15-second intervals.

2.3.1 Attached Steam Plumes. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

2.3.2 Detached Steam Plume. When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

2.4 Recording Observations. Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on an observational record sheet. (See Figure 9-2 for an example.) A minimum of 24 observations shall be recorded. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

2.5 Data Reduction. Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. If an applicable standard specifies an averaging time requiring more than 24 observations, calculate the average for all observations made during the specified time period. Record the average opacity on a record sheet. (See Figure 9-1 for an example.)

3. QUALIFICATION AND TESTING

3.1 Certification Requirements. To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5 percent increments to 25 different black plumes and 25 different white plumes, with an error not to exceed 15 percent opacity on any one reading and average error not to exceed 7.5 percent opacity in each category. Candidates shall be tested according to the procedures described in Section 3.2. Smoke generators used pursuant to Section 3.2 shall be equipped with a smoke meter which meets the requirements of Section 3.3. The certification shall be valid for a period of 6 months, at which time the qualification procedure must be repeated by any observer in order to retain certification.

3.2 Certification Procedure. The certification test consists of showing the candidate a complete run of 50 plumes--25 black plumes and 25 white plumes-generated by a smoke generator. Plumes within each set of 25 black and 25 white runs shall be presented in random order. The candidate assigns an opacity value to each plume and records his observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to

qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program and may be preceded by training or familiarization runs of the smoke generator during which candidates are shown black and white plumes of known opacity.

3.3 Smoke Generator Specifications. Any smoke generator used for the purposes of Section 3.2 shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display in-stack opacity based upon a pathlength equal to the stack exit diameter, on a full 0 to 100 percent chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table 91. The smoke meter shall be calibrated as prescribed in Section 3.3.1 prior to the conduct of each smoke reading test. At the completion of each test, the zero and span drift shall be checked and if the drift exceeds ±1 percent opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table 9-1. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry including the chart recorder or output meter, or every 6 months, whichever occurs first.

TABLE 9-1 - SMOKE METER DESIGN AND PERFORMANCE SPECIFICATIONS

Parameter	Specification
a. Light Source	Incandescent lamp operated at nominal rated voltage
b. Spectral reponse of photocell	Photopic (daylight spectral response of the human eye - Citation 3)
c. Angle of view	15° maximum total angle
d. Angle of projection	15° maximum total angle
e. Calibration error	±3% opacity, maximum
f. Zero and span drift	±1% opacity, 30 minutes
g. Response time	5 seconds

3.3.1 Calibration. The smoke meter is calibrated after allowing a minimum of 30 minutes warmup by alternately producing simulated opacity of 0 percent and 100 percent. When stable response at 0 percent or 100 percent is noted, the smoke meter is adjusted to produce an output of 0 percent or 100 percent, as appropriate. This calibration shall be repeated until stable 0 percent and 100 percent opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.

3.3.2 Smoke Meter Evaluation. The smoke meter design and performance are to be evaluated as follows:

3.3.2.1 Light Source. Verify from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within ±5 percent of the nominal rated voltage.

3.3.2.2 Spectral Response of Photocell. Verify from manufacturer's data that the photocell has a photopic response; i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity in (b) of Table 91.

3.3.2.3 Angle of View. Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15°. The total angle of view may be calculated from: $\theta = 2 \tan^{-1} (d/2L)$, where θ = total angle of view; d = the sum of the photocell diameter + the diameter of the limiting aperture; and L = the distance from the photocell to the limiting aperture. The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters this is normally an orifice plate.

3.3.2.4 Angle of Projection. Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15°. The total angle of projection may be calculated from: $\theta = 2 \tan^{-1} (d/2L)$, where θ = total angle of projection; d = the sum of the length of the lamp filament + the diameter of the limiting aperture; and L = the distance from the lamp to the limiting aperture.

3.3.2.5 Calibration Error. Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter according to Section 3.3.1 and then inserting a series of three neutral-density filters of nominal opacity of 20, 50, and 75 percent in the smoke meter pathlength. Filters calibrated within 2 percent shall be used. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum error on any one reading shall be 3 percent opacity.

3.3.2.6 Zero and Span Drift. Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.

3.3.2.7 Response Time. Determine the response time by producing the series of five simulated 0 percent and 100 percent opacity values and observing the time required to reach stable response. Opacity values of 0 percent and 100 percent may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

4. BIBLIOGRAPHY

1. Air Pollution Control District Rules and Regulations, Los Angeles County Air Pollution Control District, Regulation IV, Prohibitions, Rule 50.

2. Weisburd, Melvin I., Field Operations and Enforcement Manual for Air, U.S. Environmental Protection Agency, Research Triangle Park, NC, APTD-1100,

August 1972, pp. 4.1-4.36.

3. Condon. E.U., and Odishaw, H., Handbook of Physics, McGraw-Hill Co., New York, NY, 1958, Table 3.1, p. 6-52.

Alton Permit
Docket No. 2009-019
Exhibit 16

0011

Outgoing
C025005
#3371
OK

From: Priscilla Burton
To: Black, Jon; OGMCOAL
CC: Dean, Dana; Haddock, Daron
Date: 10/13/2009 11:33 AM
Subject: Coal Hollow Mine C/0025/0005 Outgoing
Place: OGMCOAL
Attachments: fugitive dust plan_20091013104332.pdf

Hello Jon,

A fugitive dust control plan was required as part of the coal mining application on file with the Division of Oil Gas and Mining in accordance with Utah Coal Mining Rule R645-301-423 which states:

"For all SURFACE COAL MINING AND RECLAMATION ACTIVITIES with projected production rates exceeding 1,000,000 tons of coal per year, the application will contain an air pollution control plan which includes the following:
423.100 An air quality monitoring program to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices proposed under R645-301-423.200 to comply with federal and Utah air quality standards; and
423.200 A plan for fugitive dust control practices as required under R645-301-244.100 and R645-301-244.300."

R645-301-244.100 reads, "All exposed surface areas will be protected and stabilized to effectively control erosion and air pollution attendant to erosion."

R645-301-244.300 pertains to repair of rills and gullies that prevent plant establishment and contribute to water erosion.

Attached is the fugitive dust control plan that was included in the Coal Hollow Mine application. Dave Strohm, JBR, was the consultant who put together this plan. As we discussed by phone, Method 9 is being proposed for monitoring of the fugitive dust control plan. Div. Oil Gas & Mining does not have the expertise to evaluate the use of method 9. Your comment that EPA Method 9 is occasionally used for fugitive dust control monitoring of sand and gravel operations has been helpful. I am hopeful that DOGM will coordinate the permitting and compliance of this control plan with DAQ in the future.

As we discussed the Coal Hollow Mine may expand into adjacent federal leases in the future. Dave Prey, UDAQ provided comment on the Air Resources analysis for the Draft BLM EIS for the adjacent federal leases. Andrea Stacey, Dave Sharrow, John Notar provided comment for the National Park Service. Ken Distler represented the EPA. Scott Archer represented BLM, Denver. Keith Rigtrup, BLM Cedar city (435-865-3063) is the lead for the BLM and he could let you know the status of the air analysis document and put you in contact with the commenters listed above.

Please call or email me if you have any questions on the coal hollow mining plan application.

Priscilla Burton, CPSSc
Division Oil Gas & Mining
319 Carbonville Rd., Ste. C
Price UT 84501
(435) 613-3733

Alton Permit
Docket No. 2009-019
Exhibit 17

0048

ACT/025/005 Incoming cc: Priscilla Dana Daron

USDA United States Department of Agriculture | Forest Service | Dixie National Forest Powell Ranger District | 225 East Center Street P.O. Box 80 Panguitch, UT 84759-0080 435-676-9300

File Code: 1950-5
Date: May 9, 2008

RECEIVED
MAY 13 2008
DIV OF OIL GAS & MINING

Ms. Mary Ann Wright
Associate Director, Mining
Coal Regulatory Program
Division of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, UT 84114-5801

Dear Ms. Wright:

Thank you for the letter informing the Powell Ranger District, Dixie National Forest, that the Utah Division of Oil, Gas and Mining has determined the Alton Coal Development, LLC permit application for the Coal Hollow Mine is administratively complete.

The District understands that "Alton Coal Development intends to conduct surface coal mining on the 635.64-acre tract of land to mine privately held coal leases" and is "located in Kane County, T.39 S, R.5 W, Sections 19, 20, 29, and 30, approximately 3 miles south of Alton on County Rd. #136". This tract of private land is immediately adjacent to a Bureau of Land Management (BLM) tract, which is also under consideration for surface coal mining, and within one mile of National Forest System lands on the Powell Ranger District, Dixie National Forest.

On February 26, 2007, the District/Forest submitted a letter to the Kanab Field Office, BLM, expressing concerns to be addressed in the Alton Coal Tract Lease by Application, Environmental Impact Statement. The concerns expressed to the BLM in the afore mentioned letter also apply to the 635.64 acre tract of privately held coal leases in the Coal Hollow Mine under review by the State of Utah, Division of Oil, Gas and Mining.

The Forest Service asks that this cover letter and an enclosed copy of the February 26, 2007, letter to the BLM be included as comments in the application/permitting process for the Coal Hollow Mine.

Again, thank you for the opportunity to provide comments.

Sincerely,

Donna L. Owens

DONNA L. OWENS
District Ranger
Enclosure
cc S.O.

USDA United States Department of Agriculture | Forest Service | Powell Ranger District Dixie National Forest | 225 East Center Street, P.O. Box 80 Panguitch, Utah 84759-0080 435-676-9300

File Code: 1950-4
Date: February 26, 2007

Mr. Keith Rigtrup
Kanab Field Office
Bureau of Land Management, USDI
318 North 100 East
Kanab, UT 84741

Dear Mr. Rigtrup:

This letter is in response to the request for scoping comments for the proposed *Alton Coal Tract Lease by Application, Environmental Impact Statement* on Bureau of Land Management (BLM) lands managed by the Kanab Field Office.

Thank you for the opportunity to suggest issues and other topics that should be included in the scope of the EIS that is being prepared. The proposed lease application and coal mine presents concern to the Dixie National Forest particularly the Powell Ranger District which is located one mile east of portions of the proposed coal mine. It is imperative the potential impacts to Federal lands and the local region be examined and mitigated to ensure that energy development is conducted in a manner that protects these lands for the public.

Our concerns include air pollution, water pollution, and the loss of scenic vistas, natural quiet, and wildlife habitat. The Forest Service also has concerns as they relate to tourism, highway safety, and the effects this proposal has on Bryce Canyon National Park (BCNP) and BLM lands managed by both the Kanab Field Office and the Grand Staircase-Escalante National Monument (GSENM) which connect through boundaries and through interagency efforts to coordinate services to the public. The Forest Service would like to work closely with staff from the Kanab Field Office as this analysis is developed.

Millions of visitors seek out the campgrounds, scenery, trails and other recreation activities found on the Dixie National Forest and adjacent BCNP, BLM, and GSENM lands. Most of these visitors travel on U.S. Highway 89 to access these areas. The outstanding visual, recreational, and resource values that are found on the Dixie National Forest should be addressed in the EIS and the potential effects to this area if adjacent lands are opened to coal mining.

Tourism represents 60% of the economic base in Garfield County, where visitor expenditures contribute substantially to employment and economic activity of Garfield County. Impacts to the economy of Garfield County should also be addressed in the EIS since coal extraction could adversely impact tourism in the area.

The proposal to extract coal near Alton, Utah, raises many concerns about what impacts these activities would have on the Dixie National Forest and the local region. Specifically there are significant concerns related to the following:

Air Quality: BCNP and nearby Zion and Capitol Reef National Parks are Class I Airsheds under the Clean Air Act, so no significant degradation of air quality should be permitted under the proposed actions in the EIS. The proximity of Alton, Hatch, and other private residential

subdivisions should also be a considered when analyzing the impacts to air quality. In addition to impacts to criteria pollutants, the Forest Service asks that you examine the visibility of dust plumes from haul routes, surface mining, coal preparation, and loadout activities in the impact analysis. The analysis should also address cumulative impacts from the distribution of coal off-site and its use in regionally located, coal fired power plants which could increase air pollution to these Class I Airsheds. The ongoing nature of the mining activity could also impact the public agencies ability to conduct prescribed burns and treat wildland urban interface areas if air quality is degraded to the point of risking compromise to a Class I Airshed.

Night Skies: The Dixie National Forest works closely with BCNP in the interpretation of night sky quality. The Red Canyon Visitor Center conducts popular evening interpretive programs to educate visitors about night sky quality. Night sky quality is principally degraded by light pollution – emissions from outdoor lights that cause direct glare and reduce the contrast of the night sky – but atmospheric clarity also plays a role. The EIS should address the impacts to night sky quality and provide mitigation measures if the night sky quality would be compromised due to round-the-clock mining operations.

Tourism: The impacts of coal development on the tourism industry of the area should be included in the EIS and should include users of National Forest, National Park, and BLM lands and visitors just traveling through the area on highways and scenic byways. During the public meetings it was stated that there would be 153 double trailer coal trucks traveling one way or 306 round trips per day along the proposed route. Please address additional heavy equipment and increased traffic loads on surrounding highways especially U.S. Highways 89, Utah Highway 20, and Interstate 15. U.S. Highway 89 has recently been designated as "The Mormon Pioneer Heritage Highway" and is also the main artery for tourist travel between Bryce Canyon, Zion, and Grand Canyon National Parks. This traffic not only includes cars but larger recreational vehicles. Increased traffic would have a negative impact on both residents, which include employees, and visitors to the area who would not be able to fully appreciate the new designation of this corridor as a result of the increased truck traffic. In addition, the analysis should include how the increased truck traffic would impact the city of Panguitch, which has recently been added to the National Historic Register. Panguitch is also the western gateway to Scenic Byway 12, an All American Road, the highest scenic designation a highway can have. The EIS should address impacts to the nationally designated historic city and adjacent designated areas.

Safety along these highways is always an issue, especially during the high tourist season. The increased truck traffic obviously will increase the safety hazard potential. The EIS should address the safety issues and possible mitigations.

The EIS should also analyze proposed and any potential haul routes, especially if there is a chance that the route may change over the 20 years of operation of the coal mine. If this does not occur during this EIS process, there may be no opportunity to address these issues in the future.

Soundscapes: During the public meetings it was mentioned that there would be no blasting associated with the proposed coal mine. The EIS needs to analyze and demonstrate how mining operations will be conducted so that no blasting would occur especially when needing to remove up to 200 feet of overburden. If there is any potential that blasting could occur during the proposed life of the mining operation (20 years) the EIS should address this potential impact.

Scenic Values: The Paunsaugunt Plateau rises to the east of the proposed coal mine. It is likely that the proposed coal mine would be directly visible from trails, roads, and viewpoints along the Paunsaugunt Plateau. It is also likely that disturbances such as removal of overburden and dust along haul routes could cause dust plumes that may be visible. These dust plumes could also affect the air quality since the prevailing winds come from the south and west. The EIS should address impacts to the scenic values of the U.S. Highway 89 corridor, which is a primary travel route for visitors to the area as discussed under the tourism section.

Water Quality: Several watersheds could potentially be impacted by the proposed coal mine. The potential for water quality degradation from ground disturbing activities within the Robinson Creek and Kanab Creek watersheds should be addressed in the EIS. The potential for water contamination from spills and natural overland flow (rain runoff) should also be addressed. This analysis should include the Sevier watershed along the proposed haul route.

Other Resource Concerns: The EIS should address a number of concerns related to possible impacts to other regional resources and visitor appreciation of the National Forest and surrounding areas. These include wildlife; habitat; sensitive species (surveys for such species should follow established scientific protocol); restoration of the impacted site; and cumulative impacts from other activities (existing truck traffic along the proposed haul routes, logging, proposed oil and gas leasing, residential expansion throughout the region). Many factors (light pollution, dust, noise, traffic) singularly may not degrade the National Forest and regional resources, but cumulatively could be a great impact to these areas and to those visiting the area. Please address what may happen if there is a future need for alternate haul routes, blasting, or expansion of the proposed mine site. In addition, impacts associated with portions of the proposed coal mine occurring on state or private lands should be considered as part of the overall cumulative impacts of the mine.

The Forest Service is very interested in being involved in the EIS process and appreciates the opportunity to provide input into this proposed project and looks forward to working with the Bureau of Land Management cooperatively on this analysis.

Sincerely,

Donna L. Owens

DONNA L. OWENS
District Ranger

cc S.O.
Eddie Lopez, Superintendent, BCNP
Brad Exton, Monument Manager, GSENM
Rusty Lee, GSENM

Alton Permit
Docket No. 2009-019
Exhibit 18

United States Department of the Interior
NATIONAL PARK SERVICE
BRYCE CANYON NATIONAL PARK
Highway 63 Bryce #1
PO Box 170001
Bryce Canyon, UT 84717

L2427 (1330)

February 23, 2007

Keith Rigtrup
BLM Kanab Field Office
318 North 100 East
Kanab, Utah 84741

Dear Mr. Rigtrup:

This letter is in response to the request for scoping comments for the proposed *The Alton Coal Tract Lease by Application, Environmental Impact Statement,* on Bureau of Land Management (BLM) lands that are managed by the Kanab Field Office.

We are pleased to have this opportunity to suggest issues and other topics that should be included in the scope of the EIS that is being prepared. In the past, proposed coal mining on BLM lands in proximity of Bryce Canyon National Park (BRCA) has been of concern, including a past proposal to mine the Alton coal deposits. The newly proposed Alton Coal mine is no exception. It is imperative that the potential impacts to federal lands and the local region be examined and mitigated to ensure that energy development is conducted in a manner that protects these lands for the public. In addition, the special protection afforded under the Surface Mining Control and Reclamation Act of 1977 to BRCA, as a unit of the National Park System, needs to be accounted for in the EIS.

As directed by the Organic Act (16 USC 1 et seq. Organic Act), Redwoods National Park Act (16 USC 79a-79q), and National Park Service Policy (2006), national parks are responsible for responding to any proposals and changes to adjacent lands that may impact the park's resources such as, but not limited to air pollution, water pollution, the loss of scenic vistas, natural quiet, and wildlife habitat. As part of our efforts to minimize impacts to resources in the parks, we would like to work closely with staff from the Kanab Field Office as this analysis is developed.

Bryce Canyon National Park was established, in part, for its "unusual scenic beauty," and the authorities establishing and enlarging the park explicitly mandate the preservation of these scenic resources. The park receives 1.5 million visitors annually, most of whom travel on Highway 89 either coming to or from the park. The park has outstanding visual, recreational, and resource values that may be severely compromised if adjacent lands are opened to coal mining. Bryce Canyon National Park is the main visitor attraction to Garfield County, where tourism represents 60% of the economic base. As such, visitor expenditures contribute substantially to employment and economic

activity of Garfield County. We believe that activities such as coal extraction could adversely impact the park's resources and visitors, and potentially diminish tourism in the area.

The proposal to extract coal near Alton, Utah, raises many concerns about what impacts these activities would have on both BRCA and the local region. Specifically there are significant concerns related to the following:

Air Quality. Bryce Canyon and nearby Zion and Capitol Reef National Parks are Class I areas under the Clean Air Act, so no significant degradation of air quality should be permitted under the proposed actions in the EIS. In addition to impacts to criteria pollutants, we ask that you examine the visibility of dust plumes from haul roads, surface mining, coal preparation, and loadout activities in the impact analysis. The analysis should also address cumulative impacts from the distribution of coal off-site and its use in regionally located, coal fired power plants which could increase air pollution to these Class I air sheds.

Night Skies. *Existing Condition*: Bryce Canyon National Park lies on the western edge of the Colorado Plateau, one of the last areas of natural night skies one can view in the contiguous US. In an expanding survey of 45 park units, Bryce Canyon ranks in the top five in night sky quality. Night sky quality is principally degraded by light pollution — emissions from outdoor lights that cause direct glare and reduce the contrast of the night sky — but atmospheric clarity also plays a role.

The combination of clear air (free of aerosols and water vapor that reduce visibility), high elevation, and a sparse human population in the immediate vicinity of the park results in a view of the night sky that is near pristine as well as vulnerable. Photometric measurements taken within the park show that zenith sky condition is virtually unaltered, attaining the theoretical natural darkness of 21.95 magnitudes per square arc-second at Yovimpa Point (the darkest location in the park). The park has collected precise data on night sky brightness and existing light pollution from Yovimpa Point in the south portion of the park, as well as Bryce Point and Inspiration Point in the northern portion. Data collected at Cedar Breaks and Zion compliment the Bryce Canyon data.

The night skies of Bryce Canyon are a popular attribute of the park, sought by thousands of park visitors each year. Ranger-led stargazing programs are extremely well attended, and the park is known nationwide for this aspect.

Potential Threats: Potential impacts to night sky quality from the originally proposed Alton Coal Mine were previously analyzed in 1989. That report found a possible substantial impact to the park, especially to the area around Yovimpa Point. The degree of impact is highly dependent on the combined brightness of the facility lights at the Alton Coal Mine, the amount of airborne particulates generated by mine and mine-related activities, and what mitigation measures are applied. The impact could potentially extend to the northern portions of the park and substantially change the character of the nighttime environment at Yovimpa Point and other key viewpoints. Concerns also extend to the nocturnal wildlife of the park that depends on darkness.

The National Park Service is interested in working with the Alton Coal Mine planning effort and assisting in getting the most value from mitigation efforts. We are optimistic that the adverse effects of outdoor lighting can be sharply reduced. The park is able to provide technical assistance on lighting selection and modeling of night sky impacts, and we look forward to working with neighboring communities and businesses to protect this valuable resource and in sharing it with the American public.

Tourism. The impacts of coal development on the tourism industry of the area should be included in the impact analysis and should include users of National Park System units and National Forests, and visitors traveling through the area on highways and scenic byways. During the public meetings it was stated that there would 153 double-trailer coal trucks traveling one-way or 306 round trips per day along the proposed route. Please address additional heavy equipment and increased traffic loads on surrounding highways especially Highways 89, 20, and 15. Highway 89 has recently been designated as "The Mormon Pioneer Heritage Highway" and is also the main artery for tourist to travel between Bryce Canyon and Zion National Parks and the Grand Canyon National Park. This traffic not only includes cars but larger Recreational Vehicles. Increased traffic would have a negative impact on both residents, which include park employees, and visitors to the area who would not be able to fully appreciate the new designation of this corridor as a result of the increased truck traffic. In addition, the analysis should include how the increased truck traffic would impact the city of Panguitch, which has recently been nominated to the National Historic Register.

The EIS should also analyze proposed and any potential haul routes, especially if there is a chance that the route may change over the 20 years of operation of the coal mine. If this does not occur during this EIS process, there may be no opportunity to address this issue in the future.

Soundscapes: During the public meetings it was mentioned that there would be no blasting associated with the proposed coal mine. The EIS needs to analyze and demonstrate how mining operations will be conducted so that no blasting would occur especially when needing to remove up to 200 feet of overburden. If there is any potential that blasting could occur during the proposed life of the mining operation, (20 years), the EIS should address this potential impact. In the 1980's staff from Bryce Canyon documented hearing explosions in the Yovimpa Point area of the park. These explosions were also measured on noise monitoring equipment in the same vicinity. After investigation it was determined that explosions heard came from oil and gas exploration on the Dixie National Forest in the Mount Dutton area. Based on conversations with the Federal Aviation Authority, the distance from the exploration sites to the Yovimpa Point area is 35-38 air miles. This is a significantly greater distance than the 10 miles between the proposed coal mine and the park boundary. This memorandum is on file in the park and available for review. Noise from mining equipment should also be analyzed; it is possible under the right conditions that operations could be heard in the park if loud enough. Sound impacts related to haul truck traffic in the vicinity of the park should also be included in this portion of the analysis.

Scenic Values. BRCA rises above surrounding terrain. It is unlikely that the proposed coal mine would be directly visible from the park due to the terrain between the park and the proposed site. It is likely though that disturbances (removal of overburden and dirt haul roads) that cause dust plumes may be visible. These dust plumes could also affect the day and night visibilities from Bryce Canyon since the prevailing winds come from the south and west. The EIS should address impacts to the scenic values of the Highway 89 corridor, which is a primary travel route for visitors to the area as discussed under the tourism section.

Water Quality. Although the watershed directly associated with BRCA should not be affected by the proposed coal mine, concerns for water quality arise from ground disturbing activities within the Robinson Creek and Kanab Creek watersheds within the boundaries of the proposed mine. Waters from these creeks eventually reach the Colorado River within Grand Canyon National Park. The potential for water contamination from spills and natural overland flow (rain runoff) should also be addressed. This analysis should include the Sevier watershed along the proposed haul route.

Other Resource Concerns. The EIS should address a number of concerns related to possible impacts to other regional resources and visitor appreciation of the parks and surrounding area. These include wildlife; habitat; sensitive species (surveys for such species should be done multiple years and during times when species are most likely to be present); restoration of the impacted site; and cumulative impacts from other activities (existing truck traffic along the proposed haul routes, logging, proposed oil and gas leasing, residential expansion throughout the region). Many factors (light pollution, dust, noise, traffic) singly may not degrade the park and regional resources, but cumulatively could greatly impact the visitors to BRCA. Please address what may happen if there is a future need for alternate haul routes, blasting, or expansion of the proposed mine site. In addition, impacts associated with portions of the proposed coal mine occurring on state or private lands should be considered as part of the overall cumulative impacts of the mine.

We are very interested in being involved in the EIS process in order to help protect National Park values. We appreciate the opportunity to provide input into this proposed project and look forward to working with the Bureau of Land Management cooperatively on this analysis. Please contact Kristin Legg, Chief of Resource Management, at 435-834-4900 or Kristin_legg@nps.gov to arrange a time to discuss our concerns.

Sincerely,

/s/

Eddie L. Lopez
Superintendent
Bryce Canyon National Park

cc: Deputy Director, Intermountain Region, National Park Service
Cordell Roy, NPS Utah State Coordinator
Supervisor, Dixie National Forest
Donna Owens, District Ranger, Powell Ranger District
Carol McCoy, Geologic Resources Division, NPS
Kerry Moss, Geologic Resource Division, NPS
Mr. Brian Thiriot, Southern Utah Area Coordinator, Office of Senator Bob Bennett
Mr. Michael Empey, Office of Congressman James Matheson
Mr. Maloy Dodds, Garfield County Commission
Mr. Claire Ramsey, Garfield County Commission
Mr. Lowell Mecham, Mayor, Tropic, Utah
Mr. Brian Bremner, Liaison, Garfield County, Utah
Manager, Grand Staircase/Escalante National Monument